

FOR THE
AMSTRAD
PCW 8256-8512

8000 PLUS

ISSUE 9 • JUNE 1987 • £1.50

**MORE
MEMORY**



Step-by-step photo guide
to a memory upgrade

DTP on PCW

Desktop Publishing with Fleet Street
Editor Plus – full review



8

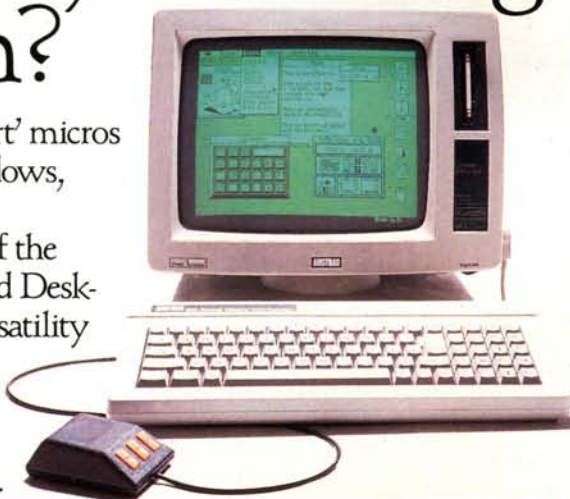
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A database type search facility allows you to enter any part of the information such as a persons' name, company name, town etc and instantly see the matching entry.



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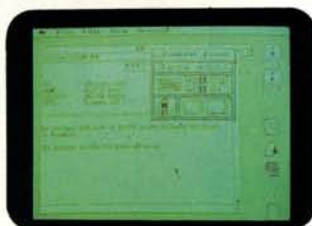
A versatile appointments diary allowing you up to seven lines to be entered for any day. Printing facilities allow yearly and monthly summaries to be produced indicating days for which an entry has been indicated.



MEMO PAD



This allows anything from a quick memo to a complete multi-page report to be produced from the Desktop. Many word processing features are included such as centering, justification, cut, copy and paste etc.



DESK ACCESSORIES



The AMX Mouse package also includes a number of extra functions which are available for use at all times from the desktop. These include a jotter, alarm clock, calculator, puzzle and control panel — the type of tools found on a real desk top!



STOP PRESS... STOP PRESS...

There will be a growing list of further mouse compatible software for the Amstrad PCW from AMS and other leading software houses in the coming months including Graphic and Desktop publishing programs.

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OPENING MENU

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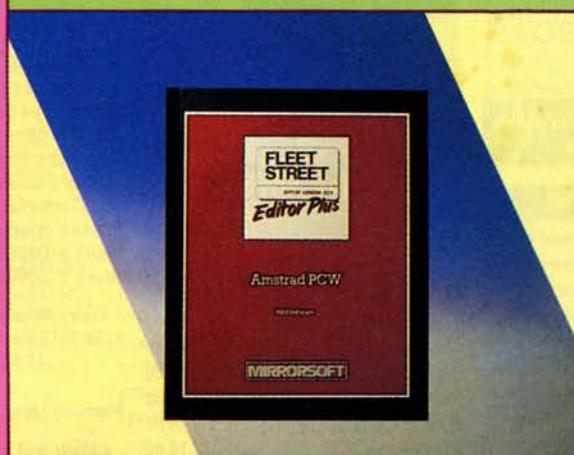


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CARTOON COMPETITION RESULTS

The famous Chris Garrett responds nobly each month to garbled requests like 'Please draw us five cartoons on modems' or 'What we really need is a funny about two column printing'. Not all are inspiring subjects, and the task we set in our April competition was to draw a cartoon relating to Mayfair's acoustic printer and micro cabinets.

We had over 80 entries, but many shared two or three common themes, such as silencing spouses, which we felt to be a bit obvious. The final selection, as usual, was hard to make, with several very professionally drawn entries. In the end, we settled on the five winners as follows:

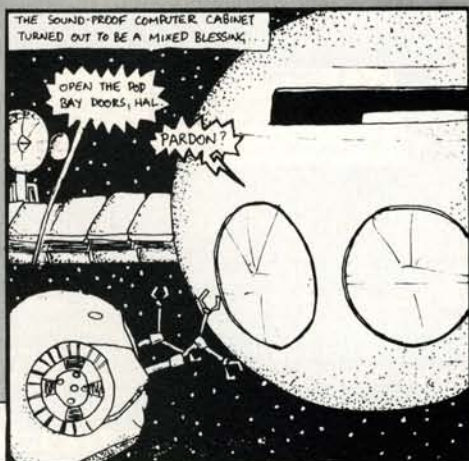
Norman Macaskill of Inverness for his witty Arthur C. Clarke quip.

I. Jarman of Maidstone for producing a recognisable Maggy Thatcher with a light pen

Brian Blundell of Blackheath for a novel twist to a common theme.

Dr. L.A. Aziz of Woolwich for his ingenuity (perhaps not to the letter of the rules, but it made us laugh).

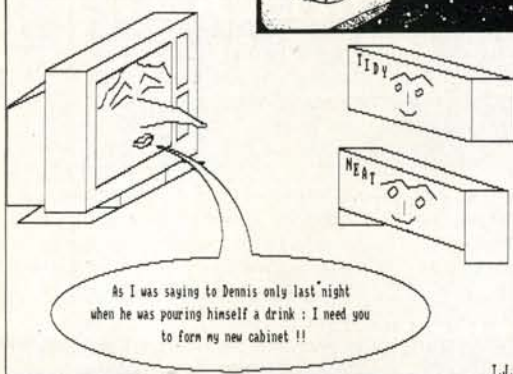
Trux of Nottingham for a professionally executed golfish joke, who all receive a set of cabinets with best wishes.



▲ Norman Macaskill's competition entry.

◀ I. Jarman's PCW obviously votes Conservative.

Two of the winners are shown here, and the remaining three decorate other pages in this issue.



I.J.

Price increase

Always a hard thing to do, explain a price increase. Suffice it to say that we have been forced to raise the cover price by 25p to cover the continuing increase in paper costs. Oh, for the day when the whole thing can be transmitted to your PCW for a few pence.

If you compare the number of PCW specific pages in *8000 Plus* with any other Amstrad magazine, you'll still find that, penny for penny, you get more information-packed pages for your money. As for the quality of the writing...

Softening the blow



To take some of the sting out of the price increase, we hope you'll enjoy using the eight colour-coded designer labels thoughtfully suspended from the front cover this month. Knowing how hard it is to get hold of the things, we spared no expense to bring you the best.

Now you can colour code copies of your master discs, label your homemade jam or wine and guarantee to impress your friends. Remember who brought them to you first.

GREAT EXPECTATIONS

One of the dangers for anyone contemplating the production and sale of computer software is what the buying public expects. By this I don't mean making sure that advertisements are accurate or that you can deliver a product on time. These considerations are very important, and are in most cases fully understood by software companies.

What is often the problem, though, is that people who have just bought their first computer have very high expectations of what it can do for them. They have been living on dreams of the wonder machine and expect that, like a television, it will provide them with entertainment and information, on tap.

To an extent, this is true, but where a micro differs from a TV or a video, is that you have to put a lot in (not just the information) to get value out. A computer isn't like any other piece of electronic equipment in this respect, as you have to train yourself to use it (and there's a lot to learn) before you can realise your investment.

Anyone who hasn't grasped this fact is likely to hit two frustrations very quickly. First, they will find the micro very difficult to use. Until you've moved a fair way along the learning curve, solutions to even the most common problems won't start to 'click' into place. Even the most basic activity will seem lost in the mists of obscurity.

The second frustration will be with the software they run, because it won't do what they expect it to. The trouble is, their expectations are unrealistic because they don't yet fully appreciate what is possible.

The ways around these dissatisfactions are similarly twofold. On one hand, the micro user must be educated to understand the capabilities of the machine and what can sensibly be expected of it. On the other, the software producers must continue to work towards the users' ideal, bound only by the restrictions of the computer itself.

Simon Williams

E&OE

Last month's communications article contained a couple of inaccuracies and an omission. We'll give you the omission first, as it's all down to David Atherton, the author of the piece, whose name inexplicable got missed from the strap line. Sorry, Dave.

The rest of the points are related to the modems and packages themselves. The price of the Tandata modem, £228.85, includes the Sage Chit Chat Combo software, which should have been made clear in the article. You should contact Tandata for a 'special price' if you want to buy the modem on its own.

The Kiwichat software is available separately, from Dataphone limited, at £45.95. Apologies there, too.

The JULY issue of 8000 Plus will be on sale on THURSDAY JUNE 11th. Book your copy now!

END OF THE 8512?

Confusion reigns over the fate of the PCW 8512. Despite a positive denial from Amstrad's public relations office that the popular twin disc machine is being axed, reports are still coming into the 8000 Plus office that Amstrad dealers have been told production has stopped.

Dealers say they are being told by Amstrad representatives that the machine is no longer in production and that they cannot re-order what is for many their best selling Amstrad micro. The reason being given is that Amstrad are having difficulty in obtaining good quality B: drives from their Korean suppliers.

There has been no question of the quality of B: drives in the past and dealers are privately speculating that the 8512 is being sacrificed to boost sales of the more recent PC 1512. After an initial burst of interest, sales of this

machine have dropped until some dealers now sell two to three 8512's for every PC.

The news has also fuelled rumours that a new twin A: drive PCW is on the cards. This would keep a twin drive machine in the range, though with reduced disc capacity, and create a clearer distinction between the PCW and the PC.

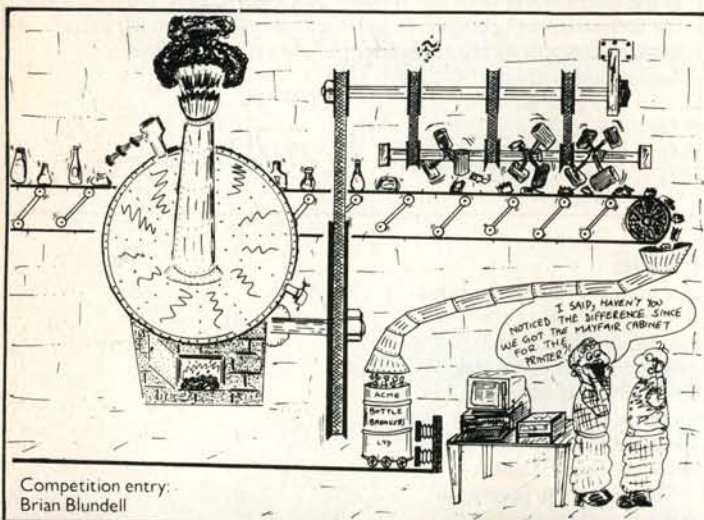
If the company does restrict the PCW to two 173k A: drives (instead of the 706k on a current B: drive), it will make a positive distinction from the PC with its 360k capacity discs. The rumours say the new machine will be launched in October, which would explain Amstrad trying to run down purchases of B: drive PCWs around now.

With the company's diversification (including its major step into domestic appliances) we can probably expect a period of



rationalisation on the computer side, and it makes sense for Amstrad to sort out its market into easily definable areas. To do this by axing a well established and popular product must, however, be regarded as a brave step. Meanwhile Amstrad deny they

are axing the 8512 and suggest the whole problem could be caused by confusion over stock distribution problems. Reassuring until you remember that Amstrad denied they were superseding the 664 until the day they launched the 6128.



Competition entry:
Brian Blundell

WHO DO YOU WANT TO TALK TO?

Moonstone Computing of Clydebank have just released a multi-format software system (MFU) for the 8256. If you have an external 5 1/4" second disc drive you can turn your PCW into a multi-format development system for £39.95.

The company claim that the MFU can read and write virtually any format of 5 1/4" floppy disc, both 40 and 80 track and can therefore transfer files easily between the PCW and other CP/M based machines or MS/PC-DOS computers such as the IBM-PC and the Amstrad PC 1512.

It comes supplied with a library of common formats which can be modified or added to using the built-in editor. It is mainly menu-

driven and doesn't need expert knowledge of CP/M to install or use different formats from the library.

It can even intelligently analyse an unknown disc, producing an assessment of the format, and create small stand-alone programs to set up frequently used formats directly from CP/M. It has built-in backup and inter-format file copy options.

Moonstone will even sell you a full upgrade kit to install a 80/40 track switchable 5 1/4" disc drive with its own power supply and the MFU software package for £199.95 plus VAT. For details phone Moonstone Computing at 041 941 3120.

DRIVEN TO DISTRACTIONS

Design Design do not explain the title of their new game compilation *Distractions*. It could mean you play the games as a distraction or that they will drive you to it. Whichever it is, there are three keyboard and joystick games on this £19.95 disc, billed as 'Design Design's greatest hits'.

Two of the games have been released already. *On the Run* puts you in the enviable position of having to clean up an area contaminated by a spillage of chemical weapons in 'a potentially lethal maze'. During this jolly jaunt you can run into any number of friendly mutants.

Or why not dabble with a renegade that has taken control of the country in *2112 AD*, the other

re-release. Trying to get a rogue computer under control does sound a bit like what do all day long, but we don't have a faithful Robo-hound called Paddy to help us.

The new game offered is *NEXOR* which quite reasonably stands for *Nemesis Experimental and Operational Research*. You become a member of this team with the important task of stopping the ultimate weapon (the Nemesis device) falling into the hands of your friendly neighbourhood aliens (the Andromedans), while remembering that you need to get parts of it back to rebuild and save civilisation as we know it.

DiSTRaCTIONS

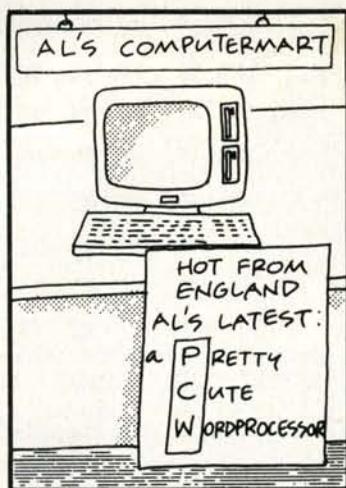


PSSST, WANT TO BUY A PCW

A large number of PCW 8256's that could not be sold in the United States are back in Britain and look likely to cause a major storm. There has been talk for a while that these machines could be re-imported from a US dealer who couldn't shift them and sold in Britain for as little as £200.

The major problem seemed to be slight differences in the printed circuit board to cope with the American 60Hz, 110 volt power supply. Before they could be used here, some sort of conversion would have to be carried out to adapt them to the British 50Hz mains supply.

Now a supply of modified, 'grey-market' 8256's has appeared in Britain and is being offered to dealers at a reduced price. The suggestion is that they should be sold at the same price as proper 8256s, giving a better mark up to the dealer.



The machines seem to work well enough and the only difference, apart from the power supply modification, seems to be minor alterations to the packaging. Warranty will be a major problem, though, as Amstrad is likely to be less than thrilled with any dealer handling these cut-price machines.

TOO BIG FOR ITS BREECHES

Not content with wowing Somerton with our style and beer capacity, Future Publishing has been forced to expand. Office space being what it is in the town we have picked up our PCWs (safely packaged in Crown travelling cases, of course) and are struggling with them to a new spacious garret in downtown Bath.

Whether we'll be able to cope with the pressures and excitement of life in the big city remains to be seen, but it would be really spiffing

to think you would still write to us at our new address, which we've sprinkled liberally throughout the magazine.

To fill another few column inches, here it is again in big type:

**8000 Plus,
Future Publishing,
4 Queen Street,
Bath BA1 1EJ**

PCW GOES TO THE SHOPS

Shopkeepers are being tempted with the prospect of saving a fortune on midnight oil with Avon Business Computer's new Point of Sale system for the PCW 8512. The PCW replaces the traditional check-out till and can do all sorts of clever things as well.

It looks up the product description and price, the VAT rating and any other relevant information and provides a running total of the transaction. When the transaction is complete, it shows the total due, works out the change and prints a VAT receipt or sale invoice.

The real beauty of the system comes at the end of the day, when you can produce daily accounts (including VAT) and update your stock records quickly and easily. It

even recommends what you should re-order.

Avon claim that using the 8512 is a major breakthrough in the point of sales market, where computerised terminals have usually cost thousands of pounds. They suggest their system brings POS into the reach of small retailers and that their package 'will probably pay for itself in just a couple of weeks.'

The system comprises an 8512 (£499 plus VAT) and the POS package (£169 plus VAT). The package works with the Sage Popular Accounts program which will set you back a further £87 plus VAT. The whole caboodle can be bought through Avon Business Computers, New Road, High Littleton, Bristol BS18 5JH.

FAME AT LAST

There is nothing quite as gratifying as discovering that someone has indexed everything you have written to ease access to your pearls of wisdom. Juken Enterprises have granted 8000 Plus the ultimate accolade of indexing all the articles from the mag since issue one and will sell you a 3inch disc of this invaluable information for only £6.

The service, called PCWINDEX Users Guide comes on A; or B: drive discs in standard ASCII form. This means it can be used with most databases, though a special disc set up to work with Database Manager (AtLast) is also available. If you don't have a database you can still use the index by loading it into LocoScript and using the 'Find' facility - although this is obviously slower.

When you delve into this treasure trove you can find each article listed under subject, title, author (smiles shyly) and a number of references. It notes whether it is

a news story or review and, most importantly, it tells you the date of issue and page.

Now every time you half remember something written in 8000 Plus over the last nine months, there's no need to have a nervous breakdown ploughing through all the back issues. When a new month's issue comes out, you can get your index disc updated to include it for £1.50.

As well as main reviews, PCWINDEX covers all TipOffs, important news stories and letters. If you haven't got a complete set of 8000 Plus, maybe you ought to buy our TipOffs book so that you can look them all up? Oh, and by the way they also produce a version for An Other magazine - *Putting Your Amstrad to Work*. You can get both indexes at the same time for £7.50.

Full details of PCWINDEX User Guide are available from Juken Enterprises, 4 Bassett Wood Drive, Southampton SO2 3PT.



OLD RIBBONS NEVER DIE

As another twist (*Oh, very good - Ed*) to the PCW ribbon debate, a Cardiff company, disarmingly called A Simple Concept, have come up with an idea for re-inking your old ribbons. In their publicity they claim that an old ribbon could be worth £120 (anyone willing to pay £120 for an old ribbon can apply to 8000 Plus...) as they claim you can re-ink your old ribbon at least 60 times.

With new ribbons costing at least £4 and ASC's re-inking at only £1.80, the company reckon you

could quickly save £120. To make it even more attractive, they have an introductory offer of £1.20 per ribbon for first orders. The company suggest you count the number of old PCW ribbons that you couldn't bring yourself to throw away and use your PCW to work out how much money you could saved. We can't help feeling there's a flaw in their logic, but we will still tell you that you can get in touch with the company on 0222 35820.

NEWS PLUS

PLUS VAT OF COURSE

It seems ironic that Amstrad, whose computers look after so many people's VAT problems, should get into trouble because they forgot the VAT. Their problems arose over the advert in the national press saying "How Much Computer Can You Buy For £450."

The Advertising Standards Authority took objection to the ad because it failed to point out adequately that this figure did not include VAT. A report from the ASA states that adverts for general consumers should mention VAT no less prominently than the price itself. Should be easy enough to work out what the VAT would be....



THE FORCES FAVOURITE

If terms like NBC Chamber and ECCM Trg trip off your tongue with NAAFI and AWOL, you could be just the person Force One is looking for. In collaboration with Sagesoft, the company has released its snappily named *Armed Forces Desk Top Manager* for the PCW 8512 or Amstrad PC.

The program is a sophisticated database, customised for the armed forces, and includes special data files for training and personnel records. Data is password protected and the whole shooting match (sic) is controlled via a series of menus.

Part one of the system costs £60 (£80 for the PC version, so there's a bargain), and extensions covering training, memos (very important), and a route planner are due soon for between £30 and £50. Contact Force One on 0252 310078 or 06333 75468.

◀ Competition entry: Dr. L.A. Aziz. Remember Oliver North and Irangate?

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TRACK	MODE	CHAN	START	LOOP	TO	FREE
1	PLAY	11	000	000	000	38 %
2	LOOP	05	012	120	186	22 %
3	OFF	01	000	000	000	100%
4	REC	07	000	000	000	68 %
5	PLAY	08	040	000	000	72 %
6	OFF	00	000	000	000	100%
7	OFF	03	012	015	025	90 %
8	PLAY	06	012	000	000	41 %

METRONOME	TEMPO	SIGNATURE	BARCOUNT
INT	120	4/4	024

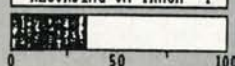
f0-CATALOGUE f4-DEC.fine
f1-LOAD files f5-INC.fine
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Budding Dave Stewarts and Howard Joneses will be ecstatic over DHCP's 8 track MIDI sequencer recently released for the PCW. This marvel of modern music electronics lets your favourite word processor run its electronic fingers over your equally enduring Casio CZ synthesiser.

Each track can be recorded separately and 'bounced down' to a single multi-track sequence. You can save the sequence at any stage, as single or multi-track files, and all

the relevant information is displayed on screen in a multi-window format.

The £124.95 package consists of the MIDI interface and sequencing software, and the same firm can also supply a voice editor so you can shape the sounds which the sequencer strings together. DHCP are also talking about a super-duper 16 track version of the sequencer, and if your looking for a peripheral for your friendly Fairlight you could do worse than to give them a ring on 0440 61207.

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POPULAR COMPUTING WEEKLY

ARNOR

FATTEN YOUR 8256

A step-by-step guide on how to improve the memory of your PCW8256. Photographs by Susan Chambers.

OK for a k?

A 'k' is a measurement of storage used by computers. One 'k' is the space needed to store 1024 characters in a document. Therefore a 173k disc can hold 177,152 characters, or roughly 30,000 words of average text.

When you make your move from your 'ideal for first time buyer' flat into your 'ideal family home', as the estate agents have it, you unpack all your things, arrange them, look at the empty rooms and wonder what to do with all the space. Within six months, you can guarantee that every room is crammed to overflowing and, even though it seemed fine at the time, you can't imagine how you ever survived in that one-bedroomed life.

Owning an 8256 is a little like the one-bedroomed flat. Perfectly habitable, but with a little breathing room you could do a lot more.

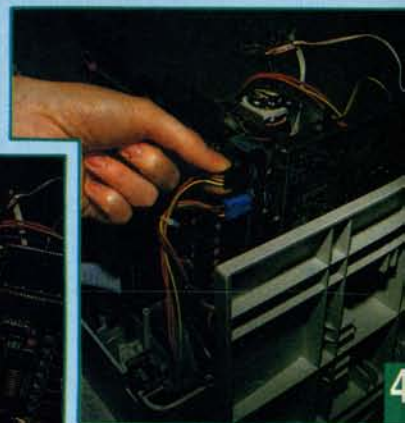
The PCW 8512 has 512k of memory rather than the 8256's 256k (now you see where the serial numbers come from!), and an extra disc drive. To buy a second disc drive for your 8256 will set you back over £100, but the memory comes cheaper – £20 or less. How this affects you depends on whether you are using LocoScript or CP/M.

4 Pull off the blue and black plugs from the corner of the board

3 Pull off the two connections to the disc drive unit: one black, one white

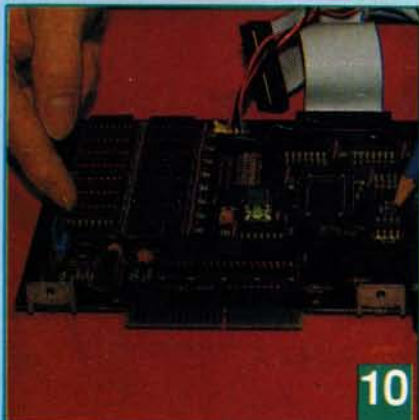
2 Disconnect the large grey plug: it's very tight, but be careful not to bend the circuit board as you pull it

1 The back of the PCW showing the six screws to be removed, one at each corner of the case, and one either side of the expansion slot



9 Insert the new chips, making sure that the notches are oriented the same way as the existing chips

10 The position of the switch block (or wire link pad on older models)



Before you embark on the great upgrade adventure, you should realise that while doing the upgrade is a quite simple procedure, the fact that you are doing it yourself (rather than via the Amstrad-approved Dictaphone service – see the 'suppliers' box) means you are invalidating your PCW guarantee.

Step by step

When you unpack your expansion chip set, you will be faced with a polystyrene pad or plastic tube containing eight memory chips. Depending on the supplier, there may also be a practice chip too.

The memory chips themselves are small black plastic things with 16 metal legs. There is a slight chance that they can be internally damaged by static electricity, so don't touch the metal legs unnecessarily. Most suppliers give you strict instructions to earth yourself somehow (by touching a radiator or tap, for instance) before handling the chips but in practice as long as you are careful there shouldn't be any problem.

11a Changing the switches over:



Even after reading this article, do read the suppliers instructions anyway just to get in the mood. Before you go on, you will need a long-shafted Philips (crosshead) screwdriver and a firm tabletop. If your machine was bought in 1985, you may also need a soldering iron and solder, something to cut wire with like a sturdy pair of scissors, and a short length of wire. The solder and length of wire is often provided with the kit by the supplier.

Take the PCW (unplugged from the mains of course) and put it, screen downwards, on your tabletop. Remove

5 Slide the board out of the PCW body, pressing the tab at the side if necessary



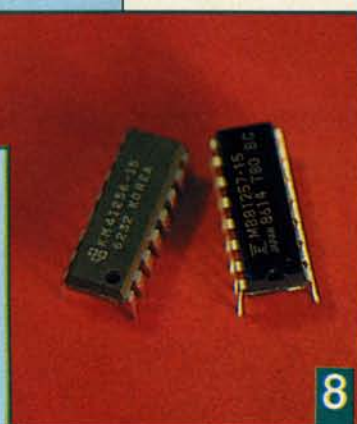
6 The empty spaces for the new chips to go in



7 If the pins are splayed out, you may need to straighten them before you can fit them into the sockets. Use a firm surface, and tilt the chip against it



8 Memory chips showing the two different kinds of orientation notch



the six screws you can see at the corners of the case and either side of the expansion connection slot. Carefully lift off the back. You will see a couple of circuit boards and the back of the screen tube.

A word of warning here. Don't touch the copper wire windings on the tube, as these can carry quite a high charge if you have been using the machine within the last few hours. If this worries you, leave the PCW to discharge overnight.

Now you have to unslot the main circuit board from the PCW. To do this, you have to unplug all the cables that lead to and from the board (some suppliers recommend you don't remove the board, but only pull the board partially out and insert the chips *in situ* – this is fine as long as you are careful not to flex the board while pushing the chips in.) Luckily all the relevant connections are by colour coded sockets, so there is no problem remembering which lead goes where when you come to reassemble it all.

You should now be able to slide the circuit board upwards, lifting it out of the case. Lay it on the tabletop. It is important that the table is firm and even, since you are going to need to push down on the board quite firmly without it flexing too much.

Now you can see the eight empty slots where the new chips go. The other eight chips immediately below the

empty sockets are the original memory chips for the first 256k. Look at them carefully and you will see that each chip has a notch at one end (or possibly a small indentation at one corner, depending on the chip manufacturer). This tells you which end of the chip is which, and the new chips must be slotted in with their orientation notches pointing the same way.

Before you can push the new chips into their sockets, you need to make sure that all the pins are straight. Otherwise when you push down on the chips the pins will splay out. If they aren't straight all you have to do is bend the pins on the table top until they are properly at right angles to the chip body.

Practice chips

Some suppliers give you a chip to practice with. Don't think that this is a spare memory chip – it is usually a quite different (probably unworking) chip that just happens to be the right size. You won't be able to make up an extra chip set with the spares from eight proper sets!

LocoScript users

Once you've installed the memory upgrade, the immediate effect is to increase the size of drive M. On the unexpanded 8256, you will see '102k free', whereas the expanded version shows '358k free'. This doesn't affect the operation of LocoScript at all, but just allows you to store more documents at a time in the M drive.

The main benefit of an extra M drive for LocoScript users becomes evident when using the LocoSpell spelling checker. LocoSpell comes with a choice of two dictionaries: as 32,000 word one and a 77,000 word one.

The dictionary itself is held in the M disc for speed of operation while

LocoScript runs. The 77,000 word dictionary is too large to fit in, and 8256 owners currently are more or less stuck with using the smaller one. The large dictionary can be used, but only by leaving it on a floppy disc which makes it quite slow. With the expanded M drive, you can happily check away with the large dictionary.

Another advantage of having the expanded memory becomes apparent when you use DISCKIT (from CP/M) to copy and back up your discs. On an unexpanded memory machine, you have to copy a disc in two parts, but with the extra memory your number of disc swaps is cut by half.

(i) before and (ii) after



11b Models sold before the end of 1985 may have wire links rather than switches. You will need to modify these instead: (i) before, (ii) during and (iii) after



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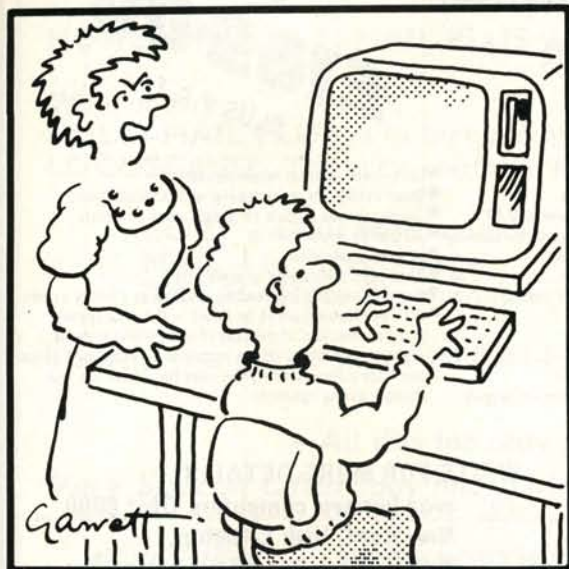
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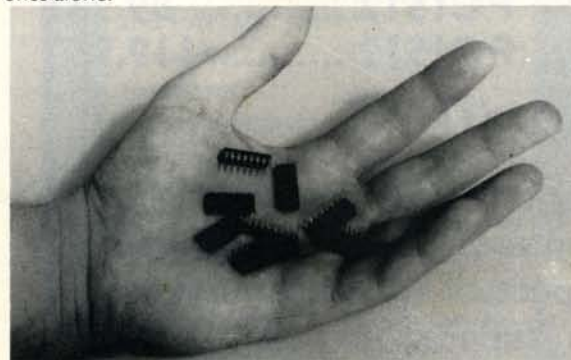
To insert the chips in their slots, make sure their orientation notch matches the rest of the chips, and, taking one chip at a time, put it so that all of its legs rest in the socket's slots. Rock it into place by pushing down gently first on one end and then the other end of the chip, until it is fully down in the socket. This is the most difficult part of the operation, because you must make sure that the pins on the chips do not buckle. Forcing it is unwise.



"I WISH YOU'D UPGRADE YOUR MEMORY - YOU'VE FORGOTTEN OUR ANNIVERSARY AGAIN"

If one of the pins does buckle, lever the chip out of its socket with a small flat-blade screwdriver, straighten the pin and try again. If the worst happens and a pin actually does break, you will have to go back to your supplier and buy a replacement - these usually cost around £2.50 each.

With the chips inserted, the only thing remaining is to change some switch settings, which tells the PCW that the new memory is ready to go. With a pencil, flip the tiny rockers marked A and B on the 4-rocker switch to the opposite way that you find them. Leave the C and D ones alone.



It is possible that your PCW does not have this 4-switch block, but instead has a couple of wires soldered in place. This means your machine is an early model, and you are going to have to get your hands dirty doing a bit of soldering.

Look at the wire links on the boards. There are four points labelled A, B, C and D, and two unlettered spots in between them. You need to cut the wire from B to the middle spot, and solder in a new one between A and that same middle spot.

CP/M users

It's really when you use CP/M that the benefits of the extra memory take off.

With your unexpanded 8256, when you start up CP/M you will see that it boasts an M drive of 112k. However, after fitting the extra chips the size miraculously leaps to 368k. A floppy disc of the type used in the 8256's disc drive holds 173k of data. This means that with the larger memory, you can hold the contents of an entire floppy disc in the M drive at once. DISCKIT benefits from this and can copy an entire single density disc in one go without pausing half way.

If you know how to make up PROFILE.SUB command files to automatically load your favourite programs and run them from the M drive, you will also have an easier time. Some programs need more than 112k of space to store all their working files in, so they cannot easily be run entirely from the M drive of an unexpanded

8256. However, with the extra memory you can copy the entire program disc into the M drive without having to think about which files need copying, and still have almost 200k to spare.

The extra memory chips increase the storage capacity of the M drive. They don't have any effect on the working memory of the CP/M operating system, and thus won't necessarily increase the capacity of your database, spreadsheet or accounts programs. In particular, if you use BASIC you won't get any increase on your 31k of program workspace by installing the memory chip upgrade.

All programs run faster when stored in the M drive rather than on floppy disc, and you will certainly find that using your new-look M drive makes the running of almost any program much less frustrating.

Now for the crunch. Slot the circuit board back in the PCW, plug all the cables back into their positions, lower the back on screw it down. Plug in the keyboard, cross your fingers, throw salt over your left shoulder twice, plug in and start up either CP/M or LocoScript.

You should see that the M drive has vastly increased in size. If so, then well done! You've just saved yourself £40 on professional installation charges. If not - turn off immediately.

Trouble shooting

If you've followed all the instructions carefully but your PCW looks like a sick parrot (green and squawking, or just deceased), something is amiss.

Reopen the case and check that all of your chips have their orientation notches pointing the same way. Check that you have correctly altered the switches or wire links. If these all seem OK, then there is nothing you can do except remove the new chips, reset the switches back to the unexpanded 8256 layout, and abandon your upgrade attempt. It is possible that you have a faulty chip, and you should get in touch with your upgrade kit supplier.

You should realise that doing this upgrade yourself invalidates your Amstrad guarantee (if it is still in force). That is the risk you take by fitting your own upgrade - you can always pay the extra £40 for Dictaphone to do it for you, which is guaranteed to work.

EXIT

Miser note

If you know about such things, you may want to scour your local computer shops to see if you can pick up the chips cheaply for yourself. You need to look for 256k dynamic RAM chips, 150ns access time - there are a variety of manufacturers. The exact serial number can vary, since different manufacturers use different prefix letters, but the chips should have the number code 41256-15 somewhere on them.

The suppliers

All prices below include VAT and post & packing. The chips provided all work, of course, so the relative value-for-money is fairly simple to judge for yourself. Check availability before ordering. Each supplier is rated by the quality of the instructions provided, where we could get hold of them.

MEAC Designs (0252 879005): £18.95
Practice chip provided
Instructions ■■■■□

Analytical Engines (0703 262099): £19.49
Practice chip not provided
Instructions ■■■■□

Silicon City (087 255 2112): £23.90

Practice chip provided
Instructions ■■■■□

DK'Tronics (0493 602926): £31.20
Practice chip not provided
Instructions ■■■■□

Dictaphone (0926 29124): £64.50
Price includes Amstrad-approved fitting on your premises and doesn't affect your PCW's guarantee

Nabitchi (051-708 8775/0123): £25.30
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HOMEVIEW

£195.44 • Cavalier Software/Load & Run • 0322 72116/73128

As the 8000 Plus staff prepare to fold up their tents and move to the new office in Bath there has suddenly been a great interest in estate agents. Who could be better than us as instant experts to look at Cavalier Software's new Homeview – a program to make PCW-owning estate agents' lives easier?

Whenever you want to buy a house, estate agents seem to ask a series of questions and then, regardless of the answers, hand over a sheaf of 94 house descriptions, one or two of which might approximate to the right thing. Apart from decimating the world's rain forests, this really wastes everyone's time. Computers are ideally suited to the information matching process, and it is a mystery that so few estate agents yet use them.

The big match

The idea is simple. In one section you list the name and details of all purchasers, and in another you list all vendors. When a new customer comes in you add their details to the appropriate list and then check it against the other list to find the most suitable houses or prospective buyers already there. There is also a simple mailmerge facility that prints out letters (prepared with LocoScript or another wordprocessor) and produces envelope labels.

The ideal for house buyers is a system where they specify every requirement – North facing sea view in the Bath area with nine bedrooms and the lounge carpet in green and gold. You run that into the computer and out pops the ideal Des. Res. On the other hand, estate agents are not so keen on being so precise as there is a good chance they wouldn't have a house to fit the requirements, or worse the system would ignore an almost ideal house because the lounge carpet was green and beige.

Homeview takes a compromise approach. For instance, prospective buyers can opt for three choices of house type and three choices of area. Although the program comes with a menu of nine property types to choose from (bedsitter up to detached), if none of the categories is suitable you have the chance to change them to suit. So if your agency sells a lot of castles you can commit one of the nine options to this description.

Pick an area...any area

The ability for the buyer to specify a number of choices is obviously more important with the areas. When you set the system up you partition your trading region into 19 different areas, of which the customer can specify three (or all of them). Setting up this list is obviously the most complicated part of the program and will need a bit of thought.

Prospective buyers have to specify the minimum number of bedrooms needed and the maximum amount they have to spend – the program will then give details of

A MOVING EXPERIENCE

Calling all estate agents!
A new program is out to help you
match buyers and sellers
more efficiently.

any properties that suit. The agent can list mortgage details, 'house ownership status' and even enquiry strength with grades of interest such as 'red hot'.

Cavalier have kept their sensible 'Short Name' method of finding entries, as used in their accounts and stock control packages. This means that as well as an eminently forgettable 10 character reference number for each entry you can define a short name of six characters. Type in this short name and the program shows you all the entries under that name (five at a time if the short name is Smith for instance) with the relevant full reference number.

CREATE VENDOR DETAILS - REF 123456 LAN

NAME	[Baron Land
ADDRESS 1	[Somerton Castle
ADDRESS 2	[Near the Old Barn
ADDRESS 3	[Somerton
ADDRESS 4	[Somerset
SHORT NAME	[Land
HOME PHONE	[0450 12345
WORK PHONE	[0450 74000
EXTENSION	[]
DATE	[01/06/87]
PROPERTY TYPE	[]
AREA CODE	[]
RATEABLE VALUE	[]
FREEDOMS	[]
NO. OF BEDROOMS	[]
NO. OF REC.	[]
NO. OF GARAGES	[]
HEATING TYPE	[]
GARDEN	[]
VALUE	[]
AGREED COMMISSION %	[]
SOLE AGENCY	[]

PROPERTY TYPES

1	Studio
2	P/B Flat
3	Conv. Flat
4	Maisonette
5	Terraced
6	End Terraced
7	Semi Detached
8	Detached
9	Cottage
0	UNSPECIFIED

The process is similar for storing vendors' details. The same categories of area and house type codes are used, along with the number of bedrooms, reception rooms and garages, type of heating, the type of garden and, most importantly, the value. For the estate agents' use there is space for the agreed amount of commission and whether they are sole agents.

The rest of the program allows you to print out all the details you need. For instance you can produce lists of vendors or purchasers with full details, a telephone list or a price list. You can print out the results of matching purchasers with vendors and vice versa and you can produce mail-shots (for instance asking prospective purchasers if they want to be kept on the lists) address labels and statistical counts.

Verdict

The program is sensibly structured and simple to use. It is obviously not a package for the home user to buy, and the price reflects this. The main decision you have to make is whether it will save your business £200 worth of time and organisation. After all, if it gets you one extra sale the software will have paid for itself.

As well as the basic program at £195.44, you can choose from a couple of package options. A PCW8512 together with the software costs £746.35, and the 8512, software, and installation service anywhere in the UK costs £1033.85. All prices include VAT.

PLUSES

- ⊕ Simple enough for staff not used to computers
- ⊕ Makes up standard mail-shot letters from LocoScript
- ⊕ You can adjust property categories to suit
- ⊕ Customers are always impressed by computer printouts!

MINUSES

- ⊖ Programmed in BASIC, so might be slow if you have a large business
- ⊖ There will always be odd purchasers whose requirements don't fit your system setup
- ⊖ Not cheap

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NEAT FLEET STREET

Over 1000 man days' work has gone into Mirrorsoft's new desktop publishing program. What can it do for your PCW, and how well does it do it? Simon Williams dons his perspex-peaked cap to find out

FLEET STREET EDITOR PLUS £69.95 • Mirrorsoft • 01-377 4645

As the only inexpensive dedicated word processor on the market, the PCW has established a firm niche for itself among those who want to produce letters, reports, manuscripts or manuals. As it stands, it can produce a variety of different type styles, but can't cope with graphics, a wide variation in type size or complicated page layouts.

A new breed of software package has recently emerged, usually on much more expensive micros, known as the Desktop Publisher (DTP for short). This software extends the idea of a word processor by providing complete page make-up facilities on the screen, including graphics and display typefaces.

Fleet Street Editor Plus ('FSE Plus') is one of the first fully integrated programs to provide a text editor, graphics editor and page layout editor which allow you to build up a fully illustrated A4 page on the PCW. While the rather 'under-powered' microprocessor inside the PCW imposes some restrictions on the package (principally those of speed), most of the functions available with DTPs on other micros can also be produced using FSE Plus.

The program also sets out to present its functions in a 'user friendly' way by using a series of pull-down menus and selecting most of its facilities from these.

A guided tour

FSE Plus comes on two discs, one for the program and the other for the graphics library. Both sides of each disc are full to capacity. These discs are pocketed in the back

of one of Mirrorsoft's high quality A5 ring binders, which contains a well illustrated manual falling clearly into tutorial and reference sections. There are also appendices at the back providing a quick reference for control keys within the various editors, and a gallery of the various fonts and clip-art. These pages are particularly useful, as you can flick through graphics on the page, rather than having to load them page by page into the graphics editor.

The tutorial section of the manual is referred to as the 'Guided Tour' and runs to 25 pages. As the name suggests, it takes you round the package, using a partly completed page to work on. As part of the tuition, you're asked to fill in the remaining column with a short story, leading headline and an appropriate graphic. This neatly covers all aspects of FSE Plus and provides a gentle way into some of the necessarily complex sections of the program.

The reference section is sub-divided into the four main menu headings on the initial menu: text, graphics, layout and housekeeping. Each section provides detailed information on the function of each menu and control sequence used in the program. At the end of the manual is a more general section on page design and some useful hints on planning your publication.

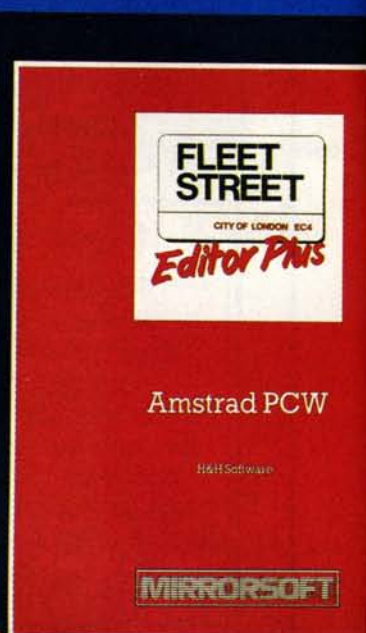
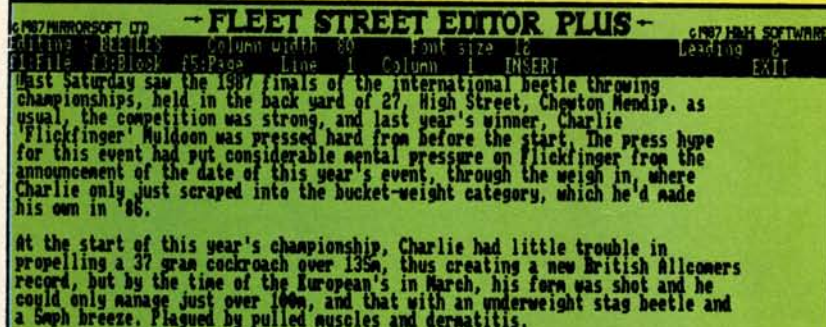
The manual, as with previous offerings from Mirrorsoft, is well laid out and clear, and should present few interpretation problems!

First steps

The first thing to do is to copy the two master discs. Most of this can be done with DISCKIT, but side A: of the program disc has to be copied using PIP because of the FSE Plus protection system. When you come to use the program, you still have to pop your master disc in briefly to check you've a legally acquired copy of the program. While you're at it you'll need at least one blank, formatted data disc to take the text, graphics and pages you create. There's no room on the program or graphics discs for any data.

The program takes a while to load, and copies files off both sides of the program disc. If you have a PCW8512, more of the editor's files are copied to the M drive, but the program is still quite usable on the smaller machine, with a few extra disc swaps.

▼ A section of 'beetle' copy in the text editor



The main menu screen shows the FSE Plus header and four menu options. Each refers to a particular function of the system.

The text editor

This is a simplified word processor, which is quite adequate for editing short sections of text, though longer text is probably easier to prepare with LocoScript or Protext and feed directly into the text or layout editors.

Once you've loaded text into the editor, you can insert and delete characters in the normal way, and a quick press of the [RELAY] key reformats the current paragraph. Paragraph breaks can be inserted with two [RETURN]s.

This is important, as the text and layout editors only recognise a double return as a paragraph break, and it's not possible to split paragraphs merely by indenting their first line.

There are three menus within the text editor, covering filing, block management and page setup. The file menu lets you load and save text files, abandon the current edit, start a fresh text file, erase a disc file and show details of memory and disc space. The memory details include the amount of RAM available for text and the amount lost in the current editing session. 'Lost memory' is a peculiar concept, which comes from the fact that the text editor uses up an increasing amount of workspace as it goes. If you save the text periodically and reload, then the 'lost' memory is restored.

The block menu controls cut and paste operations, and all the standard ones are there. You simply mark the start and end of any section of text by moving the cursor and selecting an option from the menu, and can then paste, copy, cut or save the text. You can use key sequences for each of these operations, and LocoScript users will be used to working with [CUT], [COPY] and [PASTE]. You need to re-mark a block after each operation, which is a nuisance. There is also a memory overhead (see box).

The page menu allows you to select column width, font size, and line spacing (known as 'leading'), and to display a word count and the column length. The column length display is particularly useful, as it allows you to measure your text in column inches or column millimetres and thus write to length. This is very important when producing single pages and can save a lot of time in the layout editor later.

The graphics editor

This is where you create the pictures for your page. You can either clip them from the graphics library disc or create them from scratch using the drawing, fill and zoom facilities within the graphics editor.

The editor uses a small arrow pointer as a cursor, which can sometimes get lost in a complex graphic, but you only need to move it again with the keyboard or a mouse to see it easily. You can move the cursor in small steps by pressing any of the four cursor keys, or by even finer amounts (a pixel at a time) by holding down [EXTRA] while moving it. Areas of the screen can be defined by marking the bottom left-hand corner with a press of [ENTER] or [RETURN] and then stretching an

elastic box out and completing it with another [RETURN].

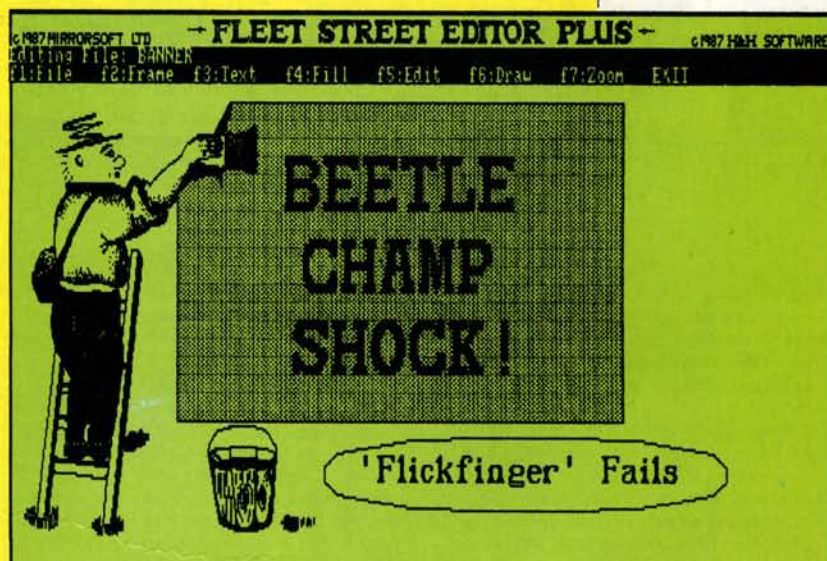
Most of the features of the editor are selected from one of seven pull-down menus. The first of these, as with the text editor, deals with filing, and offers options to save the current graphics screen to disc or to memory, and to start anew or select graphics from the library. You should back up each graphic regularly, as you can then undo any mistakes more easily by going back to old versions. You can scan through the library a page at a time and select a graphic by outlining it. This calls it into the graphics editor and you can then pull it apart and adapt it as you like.

The frame menu lets you change the style and thickness (weight) of the lines making up a box, circle or ellipse. There is a wide variety of different combinations.

Even though this is the graphic menu, you can still add text to your picture, using the text menu. There are some limitations, like not being able to edit text on a line, once you've left it (by pressing [RETURN], for instance), but you can still choose the same point sizes and types as in the layout editor.

The graphics editor includes a good fill routine which will fill complex areas quickly. There are 32 fill patterns available, and the fill is initially in black. The graphics editor checks with you that the fill is OK before changing for your selected pattern. When you come to transfer graphics to a page layout, you must choose the 'pixel-by-pixel' copy option, otherwise the result of scaling a fill pattern to fit a new size can cause weird effects.

The edit menu offers options to copy, delete, move, rotate and scale a predefined section of the graphic screen. There is a limit on the size of this section, which is again a function of the available memory. You should scale the graphic in the graphic editor and fill after you've changed its size, if you want to avoid distortion in the layout editor later on.



The draw menu offers an easy way in to drawing a number of regular shapes. You can use the options to construct lines, boxes, circles, ellipses and squarcles. This last object is a box with rounded corners, but oblong versions of it tend towards ovals. You can also draw freehand, using the sketch option, but this is much easier with a mouse than with the cursor keys.

The final menu, for zoom, allows you to insert and delete individual pixels, and is very useful for 'tidying up' graphics and checking that 'closed' shapes don't leak when you try and fill them. You move a predefined box around the screen to outline the area you want to zoom on, and the editor will then show it at full screen size. ►

▲ A doctored and filled graphic from the library

The graphics library

The 26 pages of graphics supplied with FSE Plus are varied and well selected. You have lots of borders, flashes and logos ideal for the kind of newsletter work to which the program will probably be put. There are also some good maps, a complete set of PCW memorabilia and even a Harrier jump-jet. The selection is better than similar sets on other DTPs and has less of a 'US feel' to the drawing style than many.



▲ A partially completed page in the layout editor

You dummy

Before you get down to the nitty-gritty of laying out the pages of your publication, you have to set up a publication file on disc. You enter a long (35 character) description of the publication and a six character file name, a description of the page (A4, A5 landscape or A5 portrait) and whether you're going to need facing pages (ie special left and right hand pages). If you are, FSE Plus will offset the pages to allow for stapling or binding. With this information, FSE Plus goes away and turns it into a file to hold your layout.

The next stage is to define a page dummy, which is a kind of template. This isn't essential, as you can create a page quite happily without one, but it does allow you to create several pages with the same basic layout. You

make up a page dummy by positioning a series of horizontal and vertical lines (the 'limits') on a blank page. These limits outline the blocks in which you can then put text, headlines or graphics. The limits can be moved at any stage in the layout, but only one font and type size can be used in any block.

You can only define one page dummy per publication, so if you intend to use dummies and expect to have a front page which is different from the inside pages, you will probably have to layout the front pages from scratch.

When designing a page dummy you start by specifying the number of column guides you'll want to use. You can choose between one (full page) and seven (1" columns). Guides can be removed or adapted later if need be, but they do help to get a set number of equal-sized columns on the page. You can also choose to have imperial or metric measurements on the sizing rulers which appear along the top and down the left-hand side of the page.

You can continue to add or delete limits and can 'clip' them to the column guides to ensure the proper column spacings. When you've finished, the page dummy is saved to your publication file.

The layout editor

The editor itself offers seven drop down menus and shows about a third of an A4 page, complete with limits, text and graphics, rather reduced and elongated. You can move a small arrow cursor around the screen with the keyboard or a mouse, and build up your layout by picking options from the menus.

The *file* menu offers the normal save, load and abandon options, but also allows you to save just the format (the page with guides and limits) to use as a page dummy on future layouts.

The *font* menu lets you select any of five fonts in each of four point sizes, five styles (normal, outline, bold, slanted and underlined), and in a variety of leadings. You can also call up a status display of the current settings. If you change any of the font options, text in the current block (the area with the cursor in it) will take up the new attributes. If you increase the size so much that the text won't fit in the current block, you will lose what FSE Plus can't fit. It's still in the text file though, of course.

Bugblatter Beasts

The rest of this review looks at Fleet Street Editor Plus as it is intended to be. While the production version we had for review largely meets its specification, a number of problems were discovered during testing of the program, and it's only fair to mention them.

None of the problems cause the package to crash (stop working), but they can be inconvenient. Most are to be found in the text editor, and are most easily circumvented by loading text from files created on a separate word processor. These files must either be in LocoScript I or ASCII format.

Text Editor

The Cut and Paste option doesn't always work when you're moving a block from the end into the body of the text.

The [RELAY] key, which reformats a paragraph, sometimes stops reformatting part way through a paragraph.

The [RETURN] key, which you're meant to press twice to insert a hard return into the text (split paragraphs)

sometimes refuses to take effect.

The above three faults are not 'bugs' as such, but are a function of the way text is handled within the editor. Each time you move, copy or delete a block of text, you throw away some of the available text memory. If the limit drops too low, a message 'No RAM room' appears, and most of the editing functions stop working. You can rectify the problem by saving your work and re-entering the text editor, and avoid it by regularly saving your work. It's hardly the ideal way of working though.

Very infrequently, while deleting text from the screen, all the text disappears and you're left with a single line of peculiar graphic symbols. This only happened once during testing.

Layout Editor

If you delete a headline and the horizontal delimiting marker, the editor is sometimes confused and may still prevent you adding a replacement. If you save the part-complete page, and reload the layout editor, you should then be able to continue.



"IT COMES BUNDLED WITH THE PROGRAM..."

The *graphics* menu offers only one option, but this is different depending on the contents of the current block. If the area is free, you can insert a graphic – if it already contains a graphic, you can delete it. The insert option allows you to select a graphic from a disc file, and to reduce it to the size of the area you've defined on the page to take it. This is done progressively in horizontal and vertical scans and you can either maintain the relative proportions of the graphics or do a 'pixel by pixel' copy.

The *draw* menu lets you insert boxes and lines. These are different from guides or limits, though they may lie over them. They appear on the finished page and are printed as borders. The same menu lets you alter the weight and style of each line, with five thicknesses from 1 to 9 point, and continuous, dashed or dot-dashed. ►

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Pre-prepared text can be inserted into (and deleted from) any defined block by selecting an option from the *text* menu. If there is insufficient room to take all the text, you can either flow it into another area by repositioning the cursor, or close the file and continue it on another page. Headings are added directly from the keyboard, and as the font, size and style can be the same as in articles, you can use this option to enter any kind of text from the keyboard.

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The page menu will flip from one page of a multi-page publication to another. It is also used to add or delete entire pages and to return to the dummy page layout.

The last menu is named *view*, and allows you to insert and delete limits, to turn their display off, to show a vertical ruler and to turn the 'snap' function on and off. This last feature automatically ties text and graphics into the top left-hand corner of any defined block. Without the snap on, you can position them at any point within it.

Putting it on paper

Once you've completed the page or pages which make up your publication, you can view them at reduced scale in sequence to check the overall layout and then print them out. You have options for the PCW printer, other dot matrix printers and even a laser, though this will only produce a high quality print at dot matrix resolution.



▲ Overview of the completed page on screen

The high quality mode on the PCW printer takes a good while to complete, and you would obviously only print your master copy, and photostat other copies.

Because the PCW printer is fairly cheap, you won't get very high quality text from any desktop publishing program. Certainly if you think that LocoScript's 'high quality' text is not good enough you won't be happy with FSE Plus's output. If you have access to a photocopier which will do reductions, you will increase the print quality by preparing A5 pages as A4 and reducing them.

Verdict

In the many months that FSE Plus has been rumoured, there have been several attempts at producing other DTPs. They have succeeded to varying degrees, but Mirrorsoft's product has certainly drawn the most from a PCW in this area to date.

The various areas of the program are well integrated, with text and graphics coming together well at the layout stage. H&H software, who programmed the whole thing, are also to be congratulated on providing so many facilities on a relatively slow micro, without the whole system grinding to a halt. If you have the cash to



'Flickfinger' Fails

Last Saturday saw the 1987 finals of the international beetle throwing championships, held in the back yard of 27, High Street, Chewton Mendip as usual. That several of them were the competition was strong, and last year's winner, Charlie 'Flickfinger' Muldoon was pressed hard from before the start. The press hype for this event had put considerable mental pressure on Flickfinger from the announcement of the date. This was the first category of this year's event, in which Charlie took part, and it was his third throw which provided a protest from Jim 'Snapshot' McGuire, Flickfinger's main competitor. The furor arose over a suspect decision of the adjudicator that a flicked beetle with its wing carapace solitaped together didn't constitute 135m, thus creating a new far athletic practice. The competition umpire upheld the decision, whereupon Snapshot deliberately tipped his entire contingent of 'reachers over the umpire's head. He was not amused.

At the start of this year's championship, Charlie had little trouble in propelling a 37 gram cockroach over 135m, thus creating a new British Allcomers record, but by the time of the European's in March, his form was shot and he could only manage just over 100m, and that with an underweight stag beetle and a Simph breeze. Plagued by pulled muscles and dermatitis, Charlie has only reached full fitness in the last couple of weeks.

The competition proper started in the early hours



MOVING MOMENTS

After months of deliberation Future Publishing has finally decided to forsake the wilds of Somerset for the bright lights and fast ways of Bath. From the end of April the company will move their offices to the centre of the city to allow room for expansion.

The massive complex of Future Towers dwarfs the abbey as the spotlights pick out another airfield helicopter rushing late copy to the helipad. The vast pickford's low loaders rumble into the cavernous underground bays to offload their cargoes of printer ribbons and 3" discs. Only through constant deliveries of this size can the steaming keyboards and overheating printers of the 8000 Plus editorial team be satisfied.

LABEL MANIA

The release of issue 9 of 8000 Plus has caused a sudden mania across the country. The dramatic realisation that eight free disc labels are attached to cover of all copies of the magazine has caused frenzied speculation in the city.

A thriving black market has grown up, virtually overnight, and several minor tory MPs are known to have bought more than one copy, thus increasing their alloc-

▲ The printed page in high quality

invest in a Kempston mouse, you'll probably feel the benefit in ease of use, especially when manipulating graphics.

FSE Plus is not perfect. Even forgiving the 'bugettes', there are a number of peculiarities with the program.

The main one must be the way in which the text editor eats into memory every time you define a block.

None of these is more than an inconvenience, though, and if desktop publishing is what you and your PCW have been waiting for, you won't currently find another program to give you more for your money.

EXIT

Thereby hangs a tail...

Fleet Street Editor Plus is designed to be completely usable with nothing other than the PCW's keyboard. That's not to say that you can't use it with other input devices, though. The most obvious of these is a mouse, and the program is written to work with the Kempston breed of these high-tech rodents.

The mouse can be used for selecting options from the program's menus, for controlling the graphics blocks and for placing and deleting limits. The new high-resolution mouse works well, and only requires a small clear area of the desk. However, there are a few problems with the integration of the two programs. Click on either mouse button in the text editor and you're

liable to leave small graphics blocks on the screen. The layout editor also develops ideas of its own and will only let you place limits in set places on a page dummy. Rather disconcerting.

Once the teething troubles are ironed out, you may be interested in a combined mouse and FSE Plus deal which Kempston are putting together for £119.95.

If you want to extend the graphics library, you might like to connect a Rombo video digitiser, which can capture images from a video camera or tape. See the review on page 59 for more details. FSE Plus owners can get a £20 discount on this unit via a form in the back of the Fleet Street manual.

PLUSES

- ☐ Versatile integrated package
- ☐ Excellent manual
- ☐ Good selection of pre-defined graphics
- ☐ Makes full use of the features of the PCW

MINUSES

- ☐ Odd use of memory in text editor
- ☐ One or two minor bugs at the moment

RANGE OF FEATURES
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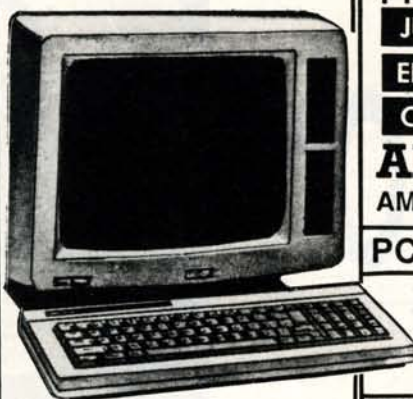
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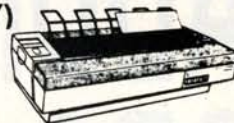
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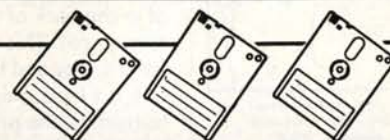
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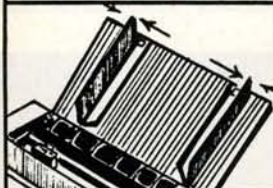
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ADDITIONAL ORGANISATION

DESK TOP COMPANION SET MEAC Designs • 0252 879005

The idea of a PCW is to get rid of the thousands of bits of paper that would normally clutter up your desk, thus leaving you looking uncannily tidy and organised. Remember this is the age of the paperless office.

Just in case there is anyone who has not yet achieved this high ideal, MEAC Designs have produced Desk Top Companions for your PCW that will go a long way to help you at least look tidy. These are simple add-ons that help you save space on your desk by creating extra storage space above and below the PCW. Of course, you might just end up stacking more wadges of scrap paper in this new space.

If you want more storage space above your screen you can buy the Monitor Mounting Tray; if you could use space under your printer there is the Printer Stand; and if you are really short of space you can buy the Monitor Mounting Printer Stand and put your printer on top of your screen.

The Monitor Tray is made of relatively sturdy grey plastic that matches the 8256 quite well (It doesn't match the 8512 quite as well unfortunately.) The legs for the tray and the printer stands are in black plastic.

There must be a reason...

Fitting them on is not really intellectually taxing. Amstrad have thoughtfully placed several vague spaces about their equipment that seem just made for something – although until now no-one was quite sure what. MEAC have eagerly pounced on these orifices to hold their add-ons in place to good effect.

For instance there are a couple of spaces on the back of in the back of the monitor (where the PCW case screws go). This turns out an ideal place to hold the legs for the tray and for monitor printer stand.

It is a little more difficult to explain the holes on the bottom of the printer but they certainly look as if they were put there just to take MEAC's printer stand legs.

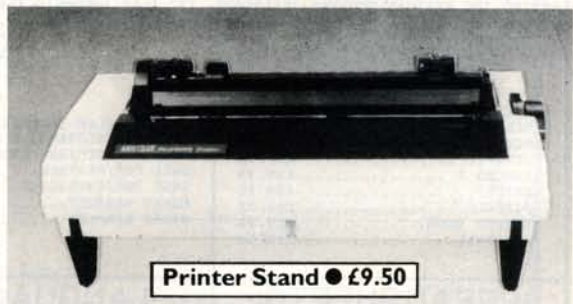
For the normal printer stand you just place a leg at each corner and then store your modem or second drive underneath. If you don't have a modem or second drive you still might think that the printer stand is worth while



Monitor Mounting Tray • £15.00



Monitor Mounted Printer Stand • £9.50



Printer Stand • £9.50

just because it seems to cut out some of the noise and vibration from your printer.

The Monitor Mounted Printer Stand provides two stick-on feet (another two are provided to balance it up if you ever take it off the monitor) and two brackets which fit in these holes on the back of the monitor to hold it firmly in place.

Verdict

These are little additions that everyone would probably be quite happy to be given as a gift. Whether you would be prepared to pay £9.50 for four printer stand legs is a different question. For those really short of desk space (or those who have bought a second printer and still use the standard one for occasional drafts) the Monitor Mounted Printer Stand is a serious thought.



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Name: A4	
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Height	70
Width	50
Top gap	6
Bottom gap	3
<input checked="" type="checkbox"/> Ignore paper sensor	

Find:	
Exch:	
<input checked="" type="checkbox"/> Ignore case	
<input checked="" type="checkbox"/> Preserve case	
Look for whole words	
Use wild cards	
<input type="checkbox"/> Manual exchange	
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Character pitch	10	12	15	17	10
<input checked="" type="checkbox"/> Normal width					
Double width					
Line spacing	0	1	1 1/2	2	3
CR extra spacing	0	1	1 1/2	0	
Line pitch	5	6	7 1/2	8	6

At just £19.95 can you afford not to have LocoScript 2?

Locoscript 2 is available by mail order direct from Locomotive Systems Limited. It costs £19.95 including VAT and postage within the UK. LocoScript 2 comes as a complete package including disc with software and examples plus a full user guide. For details and full ordering information, contact



LOCOMOTIVE SYSTEMS

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A statistic very popular with pub philosophers is that humans only use around 10% of the processing capacity of their brains. Something of this sort is probably also true of LocoMail – most people who use it only get as far as running off mailshots from an address list. In fact, LocoMail has many powerful features. It can print out invoices for you, calculate VAT rates and discounts, rephrase paragraphs to suit particular friends or enemies, print out multiple copies of LocoScript documents, and much more.

Ask me a question

Let's take a simple mailshot-producing system and add a few bells and whistles to it. Suppose that you have a list of customers and the amount they owe you. For use with LocoMail, you will be storing this data in a document such as the one shown. This contains a greeting for the "Dear ..." part, a statement of the amount due, and the full address.

Producing a simple form file to print out the address, greeting and amount in a letter is straightforward, as per the many examples in the LocoMail manual. The next question you have to think about is how to get the date into the letter. The obvious solution is to use LocoScript to edit the form letter to include the current date, but this has the disadvantage that you would have to re-edit that file every day that you wanted to print out a letter to make sure that the address was right.

The best way is to make LocoMail ask you what the current date is. As you know, LocoMail stores all its working data in 'variables'. Suppose you want to store the date in a variable called, startlingly, 'date', then the way to get LocoMail to ask you what the date should be is to put a line at the start of the document saying:

```
(@Mail)date=? ;Today's date?(@Mail)
```

This says to LocoMail, "when you read this line, stop and

```
@group/DB/DB1.878 Editing text. Printer idle. Using B:M:
Layout -File -LS1 -LP6 Page 1 line 1 of 54
FileShow f2=Layout f3=Emphasis f4=Style f5=Lines f6=Pages f7=Modes f8=Blocks EX11
-----
Greeting:
Amount:
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```

▲ The layout of a typical data file for a debt chasing mailshot

wait for the user to type in what the date is." The text after the semicolon is the prompt that is to be used, so you will see displayed in reverse video "Today's date?" when LocoMail is ready for you to type the date. The date can be entered in any format you like – '17/5/87', or '17th May 1987' – and then press [ENTER] to continue.

When you want to print out the date, you can insert it into the document with the LocoMail command:

```
(@Mail)date(@Mail)
```

This is fine, but has the major problem that when you are doing a run of lots of letters you are asked to type in the date for every single one, even though it hasn't changed. There is a way of telling LocoMail to only ask you the first time, and then to remember and reuse that date in subsequent letters: simply put an exclamation mark between the (@Mail) and the 'date=?'. Don't ask why you use an exclamation mark, you just do, that's all:

```
(@Mail)! date=?(@Mail)
```

DEAR SIR OR MADAM

LocoScript users who don't have LocoMail could be spending a lot of time doing unnecessary retyping. How tired are your fingers?

If you do any kind of business correspondence, from invoicing runs to bulk mailshots, you are bound to benefit from a mailmerge program. For LocoScript users, this comes in the shape of LocoMail. Although it can be used very simply (for mailing lists for instance), LocoMail is in fact surprisingly sophisticated. In the first of a short series of articles, Ben Taylor looks at a few applications for LocoMail with a quick guide on how to get the most from its lesser known features.

Conditioning yourself

The most powerful feature of LocoMail is undoubtedly its 'conditional printing' capabilities. This means that you can include, omit or modify any of the text in a letter depending on the details of the person you are writing to.

Since LocoMail stores all its details in variables, you can inspect these variables, compare them to other values and take appropriate action. If the date was April 1st, you could print 'April Fool's Day' instead. Carrying on with

```
@group/FUN/LET Editing text. Printer idle. Using B:M:
Layout -File -LS1 -LP6 Page 1 line 7 of 54
FileShow f2=Layout f3=Emphasis f4=Style f5=Lines f6=Pages f7=Modes f8=Blocks EX11
-----
(*Mail)town=London (*Mail)
Next time you are around the Scranton area, why not drop into our shop and
see our exciting range of train spotting handbooks for yourself?
(*Mail)EX11
-----
Exchange
Find: IF
Exch: #
Confirm each exchange
Automatic exchange to end of PAGE
Automatic exchange to end of PAGE
Automatic exchange to end of PAGE
-----
(*Mail)town=London (*Mail)
Next time you are around the Scranton area, why not drop into our shop and
see our exciting range of train spotting handbooks for yourself?
(*Mail)EX11
-----
```

▲ If you don't like using #, ., < and >, use IF, THEN, PRINT and END instead, the LocoScript's [EXCH] command to convert them. Here is before, during and after.

Where and how much?

LocoMail costs £39.95 and is available from Locomotive Software (0306 887902), from Amsoft (091-567 3395), or from Amstrad dealers like Dixons stores. If you own LocoScript 2, make sure you ask for the special new version of LocoMail.

What is LocoMail?

If you've never heard of a mailmerger, you might be wondering what one does. Very simply, a mailmerger is a program to produce personalised form letters given a list of names and addresses, and a sample of the desired letter. You are bound to have received such mailshots yourself – perhaps from Reader's Digest offering you a guaranteed fortune in their prize draw, or from your credit card company offering you bigger debts.

As well as filling in the address and "Dear Mr. Snurd" part at the top of the letter, mailmergers can also customise

the body of the text. If you have a customer list with a record of what people have bought from you, then you could insert a special paragraph into each person's letter saying "As an owner of our luminous toaster...", or whatever that person's particular last purchase was.

LocoMail, a quite sophisticated program, offers a lot more than this. You can insert numbers into the document, do calculations on them, and even go as far as writing a complete invoicing system.

the debt collection mailing list example, suppose that some people on the list you are on friendly terms with, but relations are a little strained with others.

What you want to do is to phrase the letter differently for each category. A nice chummy letter for your friends, and something a little more menacing for the rest of the population. Who you like and who you don't varies from day to day, so it would be best if LocoMail asked you "is this a friendly letter or not?" on each run through.

What is going to happen is this: when LocoMail starts processing each person's letter, it will ask you "Is this friendly?" and wait for you to type y or n, (meaning yes or no respectively suitably enough). For argument's sake, we'll store this in a variable called 'friendly'. After printing the address and "Dear Fred" greeting normally, we'll then print a brief paragraph phrased according to

ask for the date on the first letter only

insert the person's address here

ask whether the phrasing is to be friendly or not

insert the date here

insert the greeting here

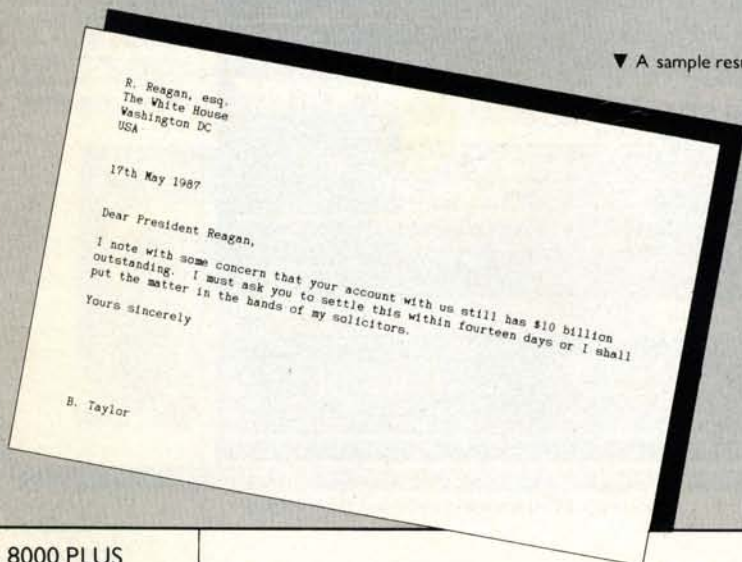
print this paragraph for friendly letters

print this paragraph for more formal letters

print 'Ben Taylor' for friendly letters, or 'B. Taylor' for formal ones.

▲ The final form letter for the debt chasing mailshot.

▼ A sample result-



whether variable 'friendly' is "y" or "n".

The LocoMail way of saying 'if this is a friendly letter then print a friendly paragraph' is a little obscure, but here goes:

```
(Mail)# friendly="y" : <(Mail)
friendly paragraph
(Mail)>(Mail)
```

When you read through this, think of '#' as meaning 'if', the ':' as meaning 'then', and the '<' and '>' as brackets enclosing the text to be printed if the condition is true. So, in English, that block of LocoMail commands reads "if the variable 'friendly' contains 'y', then print the following text."

If the '#', ':', '<' and '>'s frighten you, you could write them into your LocoMail template as IF, THEN, PRINT and END respectively, and use LocoScript's [EXCH] facility to convert them all to the appropriate symbols just before you do the mailshot run. It's best to use upper case for the words inside the Mail command, otherwise you will find that occurrences of the word 'if' in the main body of your letter also get changed, which isn't very useful.

To bring it all together, look at the screen shot for the form letter template. This starts off by asking you for the date, then inserts the name and address of the person (so you can see on the screen who it is you are writing to). It then asks you whether this letter is to be friendly or not. Type y or n at this point. The greeting name is inserted after the "Dear", and then the conditional text paragraphs start.

The first paragraph is printed only if 'friendly' holds "y", and the second paragraph only if it holds "n" – this ensures they never both appear. Notice how two consecutive conditional test have been used to get this effect, both testing what 'friendly' contains and doing different things.

Finally, the signature block is tailored to fit. Depending on what 'friendly' contains again, it is signed either 'Ben Taylor' for friendly letters, or 'B. Taylor' for more formal ones. Look carefully at where the [RETURN] codes are – [RETURN]s inside the Mail commands are not printed on the final documents, but ones outside are printed, and could give you unwanted blank lines.

Much ado about nothing

"If you do not immediately pay us £0.00, we will clap you in jail and have you transported." is the kind of letter all too easily generated with mailmergers. With the form letter as it stands, if someone's account has been paid off and their amount owing is 0, they will still get a letter from you.

There is a special LocoMail command which can save you the embarrassment of sending out this sort of thing. Put as the very first line of the form letter document

```
(Mail)# amount="0" : < : * : >(Mail)
```

You can see that this is the same kind of command as the conditional test to include or exclude text, but has an asterisk inside the Mail command where normally you would have ordinary text outside it. It says 'if the amount owing is zero, abandon the current person's data and go on to the next one'. The asterisk tells LocoMail to abandon the current person.

One thing to watch is that when editing your data file with the names, addresses and amounts in it, if you want to set someone's balance to zero you must use just a 0, not £0, or 0p. £0 is not the same thing to LocoMail as a simple 0.

EXIT

● Next month we'll finish off LocoMail's conditional printing facilities, and look at doing arithmetic inside documents – how you can get it to do all your numbering and discounting for you.

Go beyond basic...

C

C has become one of the most important computer languages in the world. Its power, scope and flexibility have already been applied to thousands of successful systems. Now you can use your PCW or CPC6128 to develop your own C programs. Arnor's optimising C compiler is the first full implementation of the Kernighan and Ritchie standard. The Arnor package is a complete programming environment — it includes the linker and a powerful, full-screen editor. Its extensive features include floating point arithmetic, conditional compilation, macros, file inclusion and an extensive library of I/O and mathematical functions.

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Maxam II

To develop effective Z80 code, you need a really efficient assembler. Arnor's Maxam II is the most powerful assembler currently available for Amstrad microcomputers running CP/M+. Its extensive monitor options have already set new standards within the industry. Comprehensive macro utilities and a full-function, flexible screen editor simplify programming and aid code design. Along with an impressive array of monitor commands, Maxam II allows for memory bank switching, full expression evaluation and program debugging through single stepping and conditional breakpoints.

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Utopia

Arnor's Utopia is an invaluable ROM-based extension to Amsdos that gives you instant access to over 50 powerful new commands. The Utopia toolbox provides a host of helpful utilities which improve the management of files, discs and memory. With Utopia you can, for example, copy files and discs without having to reload CP/M, easily examine memory and directly edit disc contents. In addition, it significantly improves the Basic programming environment by considerably extending the range of commands available to the programmer. Utopia is only available for the CPC computers.

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ARNOR

THE AGONY AND THE ECSTASY

Virginia Ironside, the 'agony aunt' of *Woman* magazine, on how she fell in love with a word processor

When I was 18, I wrote my first book in an old exercise book. My second was bashed out on a portable – and I still remember the words of the typing teacher who explained that the amount of pressure each of use exerted on our machines was equivalent to the amount of energy spent by a workman drilling a hole in the road for a morning. I've no idea where she got her facts from, but certainly a day typing on one of those ancient old machines made me look nervously at my fingers and wonder if I wouldn't soon be getting digits as muscular as Mr Universe.

I thought things had nearly reached perfection when I acquired my electric typewriter with its lighter keyboard – I wrote my third book on it.

Now, however, my electric machine sits gathering dust while I'm putting the finishing touches to my fourth book – on my PCW.

I have to confess, I'm one of those Amstrad bores (*What's one of them – Ed*). I button-hole people at parties and beg them to get one; I argue about the qualities of Amstrads as fiercely as others argue about Marxism. I'm turning into an Amstrad junkie and have to admit that the other day, while waiting for a hospital appointment, I actually took an Amstrad manual to read for pleasure.

I bought the machine on a whim, having spent five weeks in bed with flu and needing to catch up on five agony columns for *Woman* magazine. I thought I deserved a treat. Luckily I wasn't put off by the

demonstration organised for me at my local Ryman's by a friend.

"I'm not coming if it's going to be me sitting there like a lemon while you and the demonstrator make me feel ridiculous by talking in computer jargon," I said. My friend assured me he would do no such thing. Result? I sat like a lemon, frozen with increasing techno-fear as he and the demonstrator discussed 'Ks', 'files', 'documents', 'M drives' and even, more sinisterly, 'corrupt' copy.

What the press says

The reaction of other journalists to my plans was interesting. Some had bought word processors for vast sums years ago and swore they had changed their lives; some were frankly full of techno-fear, perhaps associating word processors with strikes, barbed wire and buses with barred windows; some clearly thought that word-processors were infra-dig and would encourage sloppy writing. "I always write with a stump of old pencil on the backs of old envelopes," one well-known columnist pontificated to me, "and nothing on earth would persuade me to change." Old envelopes? Talk about sloppy writing!

I finally committed myself. I could always sell it if I couldn't work it out, I thought. What the hell.



I am luckily blessed with a 13-year-old son which means, as anyone with a 13-year-old son will know, that I could dispense with taking any special computer courses. As he wrestled with problems like typing in 'DISKIT' – 'DISKIT?' as the computer so helpfully prompted – sorry, 'DISKIT' and got the thing functioning, I prepared to wade through the Amstrad guide, working my way through chapter by chapter until I finally started to get the hang of the thing.

Subsequently, I bought two other books, *The Clarity Guide* by A. Johnson and *Practical Amstrad Word Processing* by David Lawrence and Mark England. Between the three of them I can sort out most problems. Some things are clearer in one book than another; some have better tips than others. With three I feel confident. I did try ringing the Amstrad number a couple of times when things got really hairy, but talking to experts always makes me feel a nurd.

"If it says 'Error in Drive A' then you must get back to the DMS, then move the file into the M: drive by pressing

Reasons to be cheerful

I like the PCW for lots of reasons.

Firstly, I'm an extremely fast typist and the keyboard suits me beautifully. I can now type almost as fast as I can think.

Secondly, I've always hated sitting at a desk to work. I now hunch in a comfortable armchair with my keyboard and my cat on my lap, and the screen in front of me on a movable table.

Thirdly, my writing has improved dramatically. Far from encouraging

sloppy writing, it's precisely *because* it's so easy that one can spend more time correcting mistakes, re-writing passages as many times as you like, polishing and re-polishing.

Fourthly, it's so quiet. While I hated the effort of a manual typewriter, the ease of the electric was marred by the constant humming of its engine.

Fifthly, I save money by not using a typist to type my final copies.

Sixthly, I am spared that awful business of scissors and sellotape.

f4, that's [SHIFT] and f3, then press [ENTER] and put your cursor..." But she had long lost me. M: drive? DMS? What on earth was she taking about? I politely murmured my thanks and left the machine on for hours till my son got back from school. A couple of months later I am happily moving documents into the M: drive, relaxedly entering in my pagination codes, laughing flippantly when I'm asked which blocks I wish to preserve and happily popping in new layouts, italics and pitches all over the place.

When I handed my last book to the typist, it was a disgusting mess of Tippex, biro-writing churned into sellotape so it would show, arrows, inserts marked ABC etc, each page a different length and so on. Ideally, I'd get it typed then go through it again, then get another fair copy made. With publishers' advances being what they are and typists fees being what *they* are, this would mean I made virtually nothing out of the book at all.

Indeed, the final copy from a PCW is so beautifully clean that I confess that when my publisher asked for several minor corrections, I wrote them as separate documents and stuck them on the copy with sellotape. I knew that had I typed them into the original document he would never have known I'd even done them.

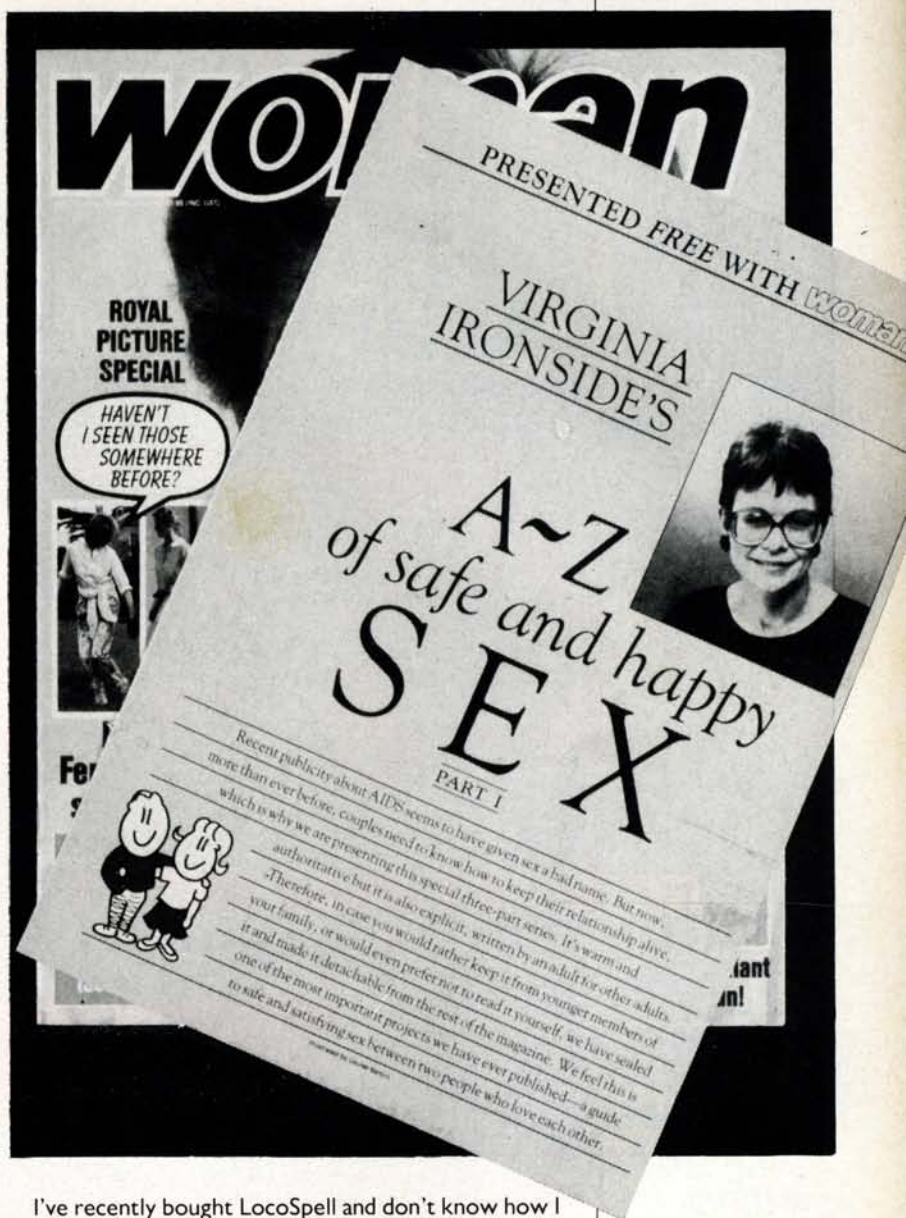
Finally, as far as the agony column that I write for *Woman* goes, I can set it to width so that it is ready to go down to the printer at once, leaving my secretary free to do other things. At *Woman* my team replies personally to every reader who writes in with a problem. We toyed with the idea of replying to them with saved blocks – if someone wrote with a bad marriage, a phobia and anorexia (and, yes, they do write with multiple problems like these), the idea would be to write the person's name, press numbered blocks say, 7 for marriage counselling, 4 for help with phobias and 3 for suggestions to help with anorexia and then send it off. But we decided in the end that it was too impersonal. Each reader who writes, writes from the heart, each with individual details and feelings. So rather reluctantly we have abandoned that idea for the moment. I still feel that at some time in the future we'll be able to work out some way of incorporating blocks into a personal letter.

Disaster areas

Only one thing proved a stumbling block when I learned how to work my PCW. In none of my books is there a list of real disaster areas. When 'Error in Drive A Disk is Full' first came up on the screen I could find no reference to it anywhere. When those little dollar signs came up, I had to ask a computer friend what they meant. No book had in big letters in the front: 'Do not overload your disc. Always leave as many K free as your biggest file'. I had to learn this the hard way. And why did no manual feature the short-cuts at the start of the book instead of the back? I recently told a journalist friend about the plus and minus keys and the short-hand to type in instructions and she was astonished. She'd had the machine a year, but had never got that far in the manual!

What I enjoy about my PCW is that I'm continuing to learn. Recently I typed out a screenplay for a friend – a cumbersome business with all those different layouts. But I had such fun working it all out, I didn't complain. Much.

Last week I taught myself Saving Blocks – useful as I was working on an A-Z of Sex and needed to turn and A for Affair into an I for Infidelity, and move it into a different document – I've chopped my 20,000 word A-Z into four. As chairman of a local residents' association, I needed a properly laid-out leaflet to copy and stuff into people's doors. My PCW did the job perfectly. I need repeat prescriptions of a certain drug each month; the letter to the doctor is stored away and I just change the date each time supplies are low.



I've recently bought LocoSpell and don't know how I did without it – my only gripe is that while it has such words as 'synod', presumably in recognition of the number of clergymen who use PCWs, it doesn't have a vocabulary essential for an agony aunt. 'Boyfriend', 'girlfriend', 'transvestite' and even 'cope' are a mystery to it.

I really look forward to working on my PCW. Not that I have much chance these days. I foolishly bought my son the *Batman* game through *8000 Plus* for Christmas. It's brilliant. But until we find the seventh piece of the Batcraft to end the game, I rarely get a look-in. Any clues, anyone?

EXIT

Are you a case?

Has your PCW revolutionised your life? Traumatized it? 'Case in Point' is a regular feature of *8000 Plus*, and we are always looking for readers with interesting experiences to relate. If you use your PCW for something more than just running LocoScript, why not share your thoughts with a waiting world?

Try to keep things light but specific, with a fair smattering of hard facts

about the packages you use. If you've had a bad time with some software, don't be afraid to sound off – you could be saving other readers weeks of agony.

We are looking for articles of not more than 2000 words, for which we will pay our usual generous rates. Write to *Case in Point*, *8000 Plus*, 4 Queen Street, Bath BA1 1EJ.

DATA ON DATABASES

A look at two new books to help prospective database users and LOGO programmers

USING DATABASES ON THE AMSTRAD PCW8256/8512

Stephen Morris • Glentop • £8.95

Most people's first choice of software for their PCW (after word processing) is a database. There are a bewildering number of different programs out there, and you often can't decide from a brief review in a magazine whether one is any better than the rest.

Using Databases is the kind of book there just aren't enough of. It starts off with an introduction to what databases do in general, but the bulk of the book is an in-depth survey of six PCW databases which names names, points out drawbacks, and goes through examples. Far too many new publications think they can get away with regurgitating the first few chapters of the LocoScript manual, and end with a summary of CP/M and BASIC. It is a refreshing contrast to see this thorough and balanced book.

The six databases covered are Matchbox (Quest), Cardbox (Caxton), At Last I (Rational Solutions), Retrieve (Sagesoft), Cambase (Camsoft) and Condor (Caxton). Between them, one of these six is likely to be suitable for any specific purpose you want. The inclusion

of Matchbox is slightly puzzling, and inevitably there have been a couple of important new databases released since the book was written such as Campbell's Masterfile 8000 and an updated version of At Last.

Each chapter of the book is a mini-manual for the database it covers. This means it is not very inspiring general reading, but with a little effort you can see whether you will be able to work the particular database fully before you take the plunge and buy it.

The text is packed with diagrams and screen shots showing what you see at each stage of the operation. If you buy one of the six databases it is quite likely that you will never need to open the manual, but will work from Stephen Morris' book the whole time. It really shows the virtue of technical writing produced by a competent author properly illustrated and printed – most product manuals are just the opposite.

If there is a flaw in *Using Databases*, it is that it is too specific to the particular packages. If you aren't interested in one of the six named programs, there is nothing there for you. It could do with an overview chapter at the end picking a few sample applications and suggesting which is the best of the packages for the purpose.

If you are about to buy a database, buy this book – it could save you from an expensive mistake.

Using Databases on the Amstrad PCW8256/8512
ISBN 1-85181-121-4
8000 PLUS VALUE VERDICT ■■■■

GETTING STARTED WITH BASIC AND LOGO ON THE AMSTRAD PCWS

F.A. Wilson • Babani • £5.95

Getting Started is aimed at those PCW users who feel a fatal fascination for programming. It sets out to cover the fundamentals of both the languages supplied with the PCW – Mallard BASIC and DR LOGO.

It is possible that Mr. Wilson is a teacher or some kind of instructor, since the whole tone is very much textbook-like. The prose is rather dry, and things tend to be introduced theoretically rather than practically. For example, the opening chapter of the book is on binary arithmetic – OK, computers do work this way, but the whole point of programming languages like BASIC is that you don't have to know about it.

Programming in BASIC has been done to death in many other books, and frankly much better than here. One problem is that all the example listings are typeset, not reproduced from PCW printouts, so there are inevitable mistakes and you often can't tell if there is supposed to be a space in a line. Where this book really scores is its coverage of LOGO.

The Amstrad manual disposes of LOGO in a very few pages, and much of the information in that is either too sketchy to be useful or just plain wrong. LOGO is best known for its 'turtle' graphics system, but it is actually quite a powerful language, and many universities use it extensively in their Artificial Intelligence courses.

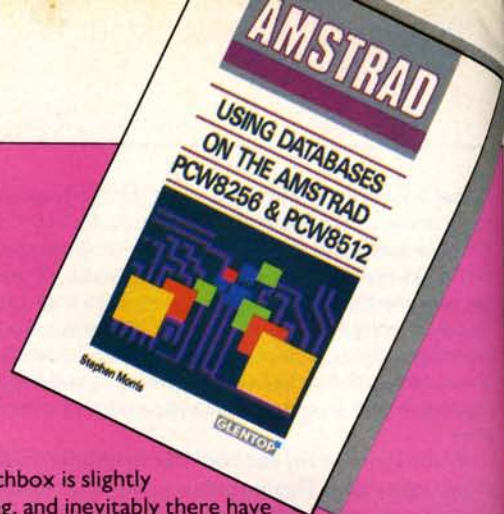
Getting Started deals with the graphics side first of all, and prints several useful diagrams showing how the screen co-ordinates are numbered for LOGO. It then goes on to cover the parts of LOGO that other books can't reach – the commands for storing things in lists and retrieving them. It is these areas of LOGO that appeal to Artificial Intelligence programmers – they are similar to the facilities offered by LISP (if you know of that language).

LOGO would really only be used as a hobby. For practical applications, BASIC is usually easier and faster to use, but if you do want to learn LOGO (most likely for its high resolution graphics facilities) you could do a lot worse than this book. It isn't a light read, but there's a lot of information packed in. Those who will get the most from it are people who know a modicum of BASIC programming and want to pick up LOGO as a second language.

Getting Started with BASIC and LOGO
ISBN 0-85934-162-3
8000 PLUS VALUE VERDICT ■■■■

Getting Started
with
BASIC and LOGO
on the
Amstrad PCWs

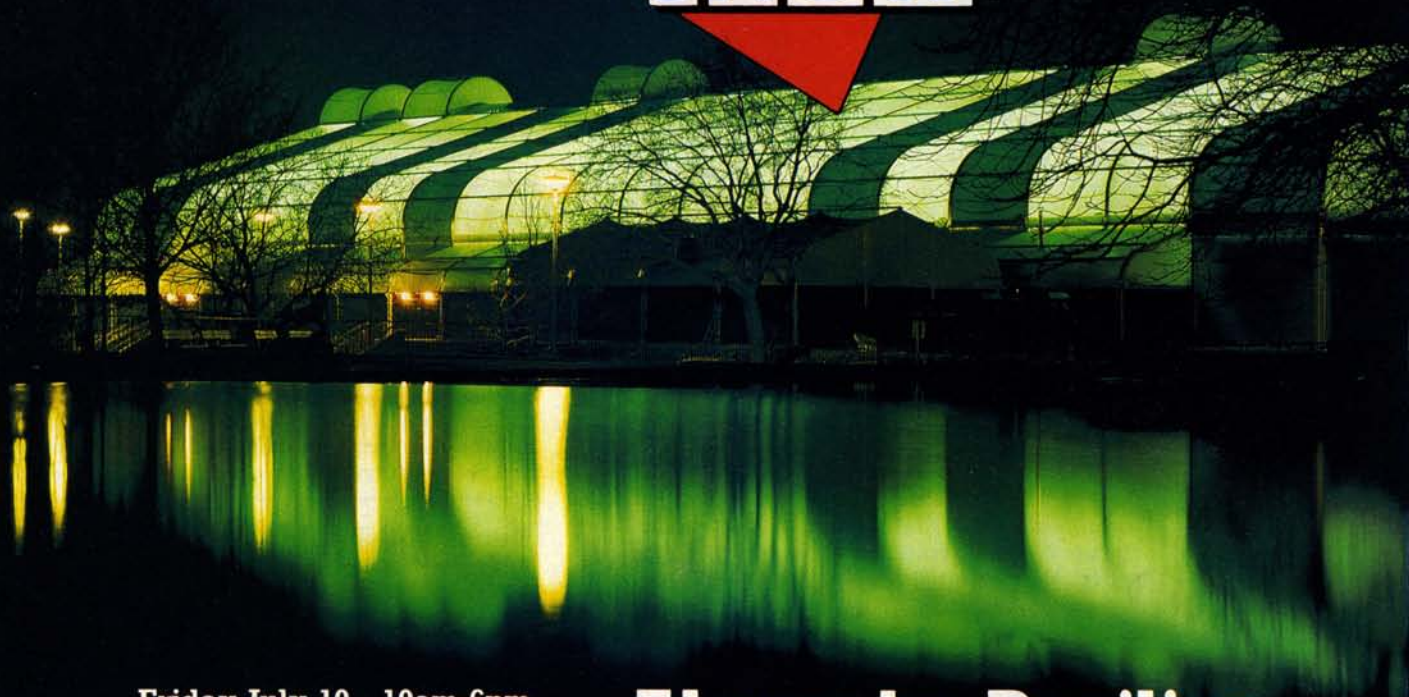
F.A. WILSON



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Anyone who has grappled with some of the PCW graphics packages of the past will applaud the latest attempt by EG Computer Graphics to provide a reasonably priced graphics program that can actually be used easily.

EG's answer to the complications of this kind of package can hardly be described as high technology. The company provides a strip of cardboard that you lay along the top of your keyboard. This simply lists the many options you have against the key that you have to press.

Assuming you don't lose this valuable 'add-on' it opens up the world of Draughtsman quickly and easily. It also means that valuable screen space is not permanently cluttered up by a collections of instructions that you may well have committed to memory.

Mind you, the list of options is full enough that it would take a while to remember easily. It obviously does all the things expected of a graphics package. It can draw any size of line, circle, ellipse, polygon or arc anywhere you

want. Just as vital you can put text in a variety of styles anywhere you want on the page.

To make it more interesting there are nine line widths and ten different line styles (variations of continuous lines, dots and dashes). There are even ten 'Fill' patterns that you can use to fill in blocks in your drawings.

There is a facility to help you draw in one or two point perspective and you can design up to 100 of your own symbols for inclusion in your drawings. Easy to see why you need this miraculous strip of cardboard to keep track of everything.

Keeping it simple

While aiming for a reasonable amount of accuracy the program still seems more interested in simplicity and speed. Instead of a large flashing cursor you use a far more accurate cross wire cursor, moved by the cursor keys. If you want accuracy you can opt for the cursor wires moving at one pixel at a time but if you are more interested in speed you can boost this up to two, four, six or eight pixels at a time.

When you are in the right place you press the correct key (according to your cardboard strip) and you are provided with an easy to follow menu. One point of interest is the key used to make the changes when using the menus. Draughtsman actually uses the key with the little grid it in the middle of the cursor keys. This key, sometimes called the 'home' key is the 'Key the World Forgot' being completely ignored by so many programmers that it is possible to forget that it is on the keyboard.

At first the way you have to use this key may seem unnatural but it does make sense especially when you are moving around the menu options with the cursor keys. Once you have got the menu bar over your choice – for instance 'Radius' when drawing a circle – pressing the home key allows you to enter a value for that option. If you don't enter a value before pressing [ENTER] to do the drawing, the radius remains the same as the last time you drew a circle.

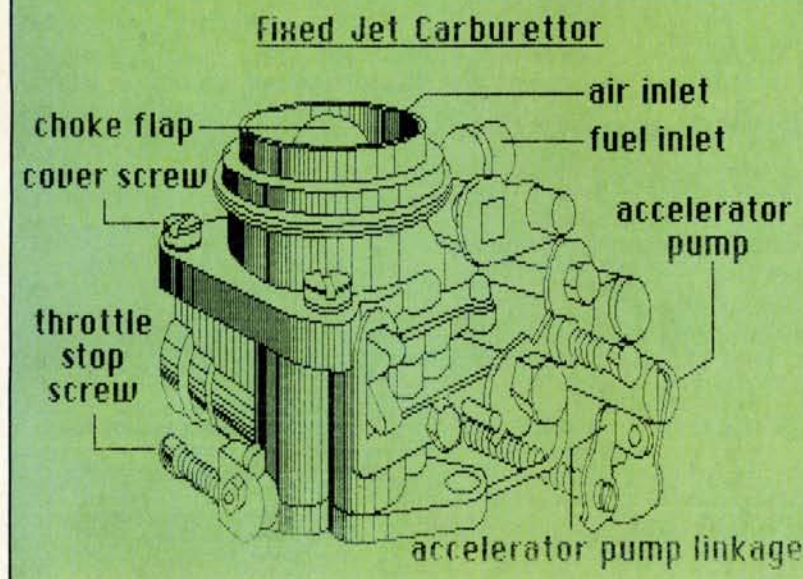
The measurement you are asked for is the radius in pixels. The documentation is unfortunately lacking in guidance on the question of what distance a pixel corresponds to on the printout, a problem for someone trying to draw to scale. It is possible to keep track of the position of a line on the screen using the x and y co-ordinates (shown above the working screen) but you are not told how to convert this information into a solid measurement.

One of the most flexible features is the ability to define a polygon. This covers everything from a triangle to a 36-sided figure. With the resolution on the green screen a 36-side polygon looks just like a circle, but it sounds good.

CAD

The explanation of a CAD program is, rather boringly, that it stands for Computer Aided Design. We are sure that it should have a far more exotic explanation but there you go.

Fixed jet carburettor drawn in perspective using the 'Draughtsman' drawing utility from EG COMPUTER GRAPHICS, for the Amstrad PCW 8256 & 8512.



▲ Just one of the examples of what Draughtsman can do. EG provide one or two examples like this to spur you on to greater efforts.

▼ The reminder strip which labels the keys on your keyboard for you.

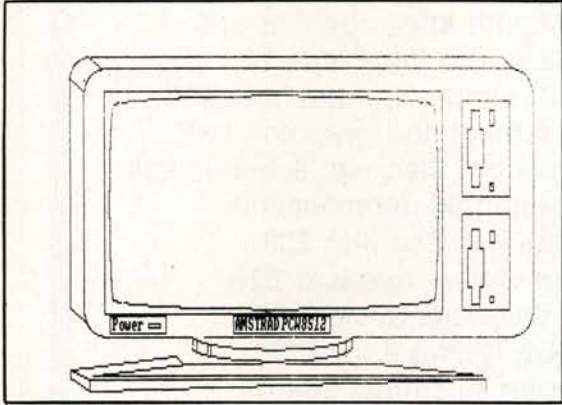
	L.OPT	X	X	X	X	X			P.LINE	FILL					
OPT	FIX	DR.W	CIRC	ELLIP	PGON	ARC	H'ZON	BAND	SPP	RUB	TEXT	SYMB	DEV	I/O	

What triangle do you want?

It is not be immediately obvious to the new user how to achieve the the exact shape wanted. For instance it is rather difficult at first to conceive of how to produce a particular triangle by setting two radii from the cursor point. A little practice soon shows you what you are aiming at, though. Perhaps more than a little practice is also needed to understand the 'Start Angle' prompt which allows you to place the figure produced at the angle you want on the screen. Luckily you can easily undo the last figure you put on the screen and start again while you are coming to grips with this.

You also have to go through a pretty sophisticated process to produce an ellipse, setting the maximum and a minimum radii. If you set them both at the same figure you have found yet another obscure way of drawing a circle! Unfortunately this doesn't have the same 'Start Angle' option, which limits the positioning.

It gets even more complicated when you want to draw an arc. Here you have the choice of two radii and a starting and finishing angle. Again the best way to understand this function is to use it. As with all the figures you can ring the changes with one of the nine line styles.



▲ A brave attempt by 8000 Plus.

For those drawing in perspective there is a facility to help with both one and two point perspective. This allows you to set the horizon and one or two vanishing points on the screen. It sets up a special perspective cursor that you can use to set your lines.

You can then select the 'Fill' feature with 10 reasonable patterns (or hatches). This 'Fill' works instantaneously (unlike some art packages) although it seems a bit erratic in the amount of the shape it fills. You can get round this by finding the correct place in the shape to put the cursor but even if it does take one or two attempts the hatching is controlled to allow two fills of the same hatch to join correctly on screen. It also means that it is not as likely to spill out if there is a gap in the shape.

Once you have completed your drawing the likelihood is that you will want to use text somewhere on the screen – even if only to sign your name. You can use three different faces with Draughtsman – ordinary, emphasised and italic. You can underline and you rotate text in 90 degree steps so you can print upside down if that feels comfortable.

When you are finished you can save the picture to disc (taking up about 23k) or print it out. Draughtsman has made clever use of the PCW's screen dump facility when it comes to printing out. As well as allowing you to print out a full page as normal you can use a screen dump facility that clears everything from the screen except the actual drawing so that you can take a quick hard copy.

What price accuracy?

EG have evolved Draughtsman to fill the gap between the "fun" art programs and the fully fledged CAD graphics programs. The art packages do not begin to approach the accuracy needed for technical drawing while the CAD programs give this high degree of accuracy and sophistication at the cost of increased price and more complicated and time-consuming operation.

The argument put forward by the makers of Draughtsman is that there is no point of buying a complicated package that has an accuracy of up to 0.01mm when you are limited to the output from a dot matrix printer.

There are those who will still have their heads turned by a program with 0.01mm accuracy but there is obviously a place for a simpler graphics program that is faster and easier to use.

The new program is based on the Draughtsman packages EG devised for the Amstrad CPC 646 and the 6128. These CPC versions have been adapted for use with Grafsales graphics tablet, and are also sold with the Kempston mouse under the name 'Blueprint.'

The company are at present working on versions to use the program with the PCW Kempston mouse and the Electric Studio light pen.

You can't draw pictures larger than the PCW screen size, and you can't draw lines finer than one screen pixel. This means that the printout quality is not as good as more sophisticated draughting packages (eg. Timatic's Microdraft), but it is faster. The quality improves markedly when reduced on a photocopier after printing!

Verdict

EG Computer Graphics seem to have achieved their aim of producing a compromise between the 'fun' art package and the 'serious' graphics program – a simple, pleasant program that can be used for some reasonably complex work. However you have to remember that it is still not a full CAD graphics program and has its limitations, like drawing size and resolution. It's certainly a serious proposition for an office with an occasional need for this type of diagram preparation.

EXIT

Symbols of Success

Ever found yourself having to redraw the same symbols over and over again? Well the answer is Draughtsman's 'Symbol Designer'. This allows you to define up to 100 symbols which can be saved on disc and used whenever they are needed. Even better you can decide what angle you want it set at (upright, 90, 180 or 270 degrees) and whether you want it normal or 'Inverted' (black on green).

This is achieved admittedly with a fair amount of effort. The program allows you to design the symbols a pixel at a time building them up from scratch in a 'zoom' type facility. You switch the pixels on (green) or off (black) moving the cursor around the screen.

This is not the easiest of tasks and needs a fair amount of practice to

produce professional results but it will obviously repay the effort for many applications. Something like a diode need only be defined once and then bunged in whenever it is needed.

EG make great play of the fact that the new PCW version is a great improvement over the CPC version because of the fact that you can define 100 symbols instead of 40 for the smaller machine. You would need a pretty complex application to take full use of the 100 symbols capacity and then it would be a frightening task keeping track of them all but most people will find a use for this feature.

The package comes with 20 predefined electronic symbols for you – except we couldn't find these symbols on the review disc!

PLUSES

- ☐ Easy to learn and quick to use.
- ☐ With practice, capable of quite sophisticated results.
- ☐ Extensive symbol defining feature.

MINUSES

- ☐ Resolution of screen and printer will not be high enough for some applications
- ☐ Difficult to measure objects to scale
- ☐ Manual does not give enough technical detail.

RANGE OF FEATURES
EASE OF USE

■■■■■
■■■■■

PERFORMANCE
DOCUMENTATION

■■■■■
■■■■■

8000 PLUS VALUE VERDICT ■■■■■

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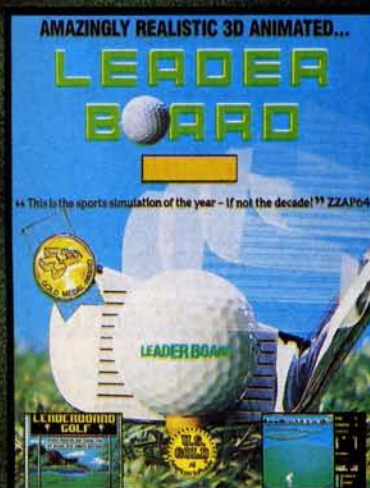
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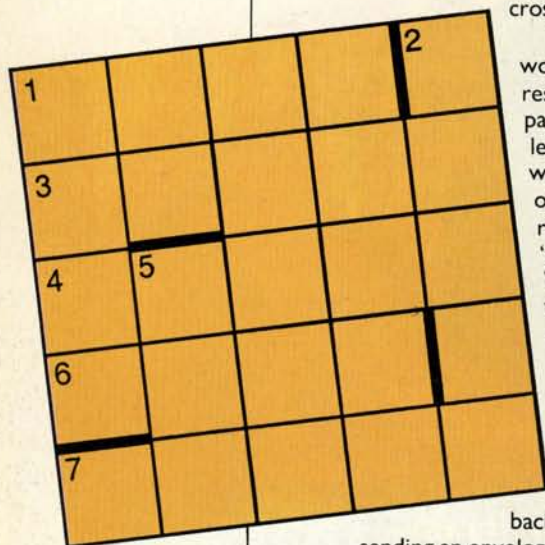


GIVE A MOUSE A HOME

8000 Plus and Advanced Memory Systems set you a challenging quiz to discover if you are worthy to win one of the five AMX Mouse and Desktop sets which are being given away free this month.

What's the word?

To win one of the five packages provided by AMS we want you to find the mystery word hidden in our word square. To make it slightly more difficult you have to put the letters in to the square by filling in the clues like a crossword.



There may be other words in the jumble of letters resulting but the one we particularly want is the five letter word running Down. It will become immediately obvious if you get the clues right. To give you a clue, it's 'a rare treat for British mice'. We can't make it simpler than that, can we? The five winners will be chosen at random from all the correct entries in the 8000 Plus office at the close of the competition.

When you have discovered what the word is all you need to do is write it on the

back of a postcard (if you insist on sending an envelope write your answer on the back) and send it marked **MOUSE COMPETITION** to our new address: **8000 Plus, 4 Queen Street, Bath BA1 1EJ.**

Across

- 1 What a happy mouse's tail does (4)
- 3 Mice use them religiously (5)
- 4 What this is all about (5)
- 6 Desk top mouse homes (4)
- 7 These are where to catch your mice (5)

Down

- 1 Are you a man or a mouse in this environment? (4)
- 2 Programs try to be friendly to them (5)
- 5 Get this in if you want a row (3)

Advanced Memory Systems caused a fair stir when they recently introduced their new mouse and desktop organiser. It not only used the mouse in its intended authentic 'WIMP' environment (such as found on the Apple Macintosh at £2,000), but it actually provided a really practical way of organising life with a PCW.

The mouse is basically a box with buttons. As you roll this box around your desk, it controls an arrow on the screen which points to various icons and menus on the screen ('WIMP' stands for Windows, Icons, Menus and Pointers) and you press the buttons at the right moment. This means that you can carry out quite complex operations on the computer without even touching your keyboard.

Anyone who wakes up screaming because they can't remember whether to type PIP M:=A: or PIP A:=M: will cry with gratitude when they see how easy it is to move files. Now you can erase files, copy files and run programs without tears. You need never enter the murky world of CP/M again.

And that is not all. The program comes complete with a diary, an address book, a calendar, a calculator and even the bureaucrats dream – a special memo writer. And don't forget the alarm clock to tell you when you've had enough. What more could you want?



Rules

- 1 Entries must arrive no later than June 20th, and the winners will be announced in the July issue of 8000 Plus.
- 2 The judges decision is final and no correspondence will be entered into.
- 4 There is never a rule 3 in 8000 Plus competitions.

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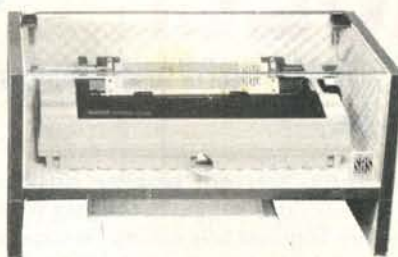


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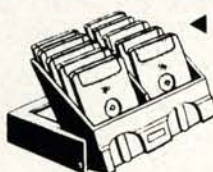
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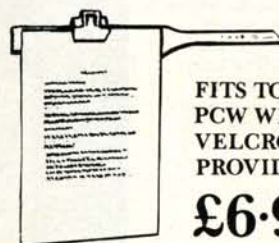
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ACCOUNT FOR YOURSELF

Ian Berry explodes a few myths and shows how easy accounting can be

Now the affordable computer has arrived, 'smaller' businessmen are seeking the benefits that folk-lore suggests the 'big boys' get. It can be tempting to go over the top and buy a fully fledged accounts-cum-stock control package, but is that really the right thing to do? Our new three part series starts this month, which takes some of the mystique out of accounting methods.

French roots

In the earliest systems there was always a 'journal' where everything was entered. This was the 'Prime Book' or 'Book of Original Entry' and the rest of the book-keeping and accounts grew from it. Journal is the French word for a diary.

Until recently computers were only bought by large firms and were so expensive that only the 'top man' could authorise their purchase. The people who had to use them had little say in the matter. This led to a lot of 'misapplications' and since it takes a big man to admit his mistakes, it took a long time to put this right – indeed many companies still haven't!

There is a risk that new microcomputer users might make the same mistakes, for the same reason –

inadequate information. It is firmly embedded in legend that computers can do anything, and do it more easily and accurately than humans. But ... it needs a human being to write the program to tell the computer what to do. Programmers, naturally, are specialists in programming. They are unlikely to be small businessmen, and even less likely to have that combination of accounting and small-business knowledge needed to write programs that will do exactly what you want.

The small businessman is an expert in his business, which means that he is unlikely to be expert at either accounting or programming. So it is easy to be misled by the optimistic claims of the blurb in the adverts, just as it was for managing directors to be misled by the smooth-talking, silver-tongued salesman with one eye on his commission.

What is the solution? No way can everyone who buys a computer learn to be an accountant – what would that do for accountants? Anyway, you should be too busy using your special skills running your business to spend time on boring old accounting!

Computers are not particularly good at accounting either. Early business computers were expensive and had to earn their keep. They are best at rapid calculations, but accounting needs more recording than calculating so programmers concentrated on things like stock control which used the calculating skills more cost-effectively. Accounting was left as a sort of 'encore'; there was never much effort put into writing programs for computer accounting, so computers now only do what used to be done by hand, but a little faster. Not all accounting programs even do that particularly well!

The arm of the law

The object of accounting is (and always has been) to present information about the business in a sufficiently pre-digested form for the busy owner to understand



Bank charges horror!

When should you start a separate business account at your bank? Until quite recently it was a good idea to open a business bank account as soon as there was enough money involved to make it worthwhile, but developments in methods and amounts of bank charges over the last year or so have made this a much less simple problem.

The banks use quite different rules for calculating their charges on business accounts and personal accounts. There is no question of 'free

banking all the time you are in credit' – in fact, with business accounts there is no such thing as free banking. With personal accounts charges are only made for payments when you are 'in the red'. With business accounts, the account is charged for every transaction – in or out – whether overdrawn or not. This fact alone makes it quite important that you don't rush into opening bank accounts until you really need them.

what is going on. This means the records must be kept up to date and in an easily understood form.

The trouble with accounting is that it looks difficult and complicated (how else would we accountants make a living?) because it must work in complex as well as simple situations. It is, however, possible to cut it into bite sized chunks that are easy to digest. By combining the right chunks, you can tailor a system for any particular set-up.

What is 'adequate' when it comes to accounts? There is no compulsory 'set of books' – the law has nothing to say about the records of sole traders or partnerships. It is only when it comes to limited companies that the Companies Acts require that "adequate books of account" are kept. Even this is not defined and is taken as meaning that the records must be adequate to enable an

auditor to satisfy himself that the final accounts have been properly prepared.

The only constraint on everybody else is that you must be able to produce accounts to satisfy the tax man at the end of the year, and – if registered for VAT – you must be able to identify the documentation for the VAT-man when he calls. Most people employ an accountant to take care of their tax affairs, and the accountant will define the minimum of records that he requires. Usually all he needs to be certain of is that all transactions are recorded and identified, and for the very small business the diary does this job very well.

Small, medium or large, sir?

The 'backbone' of any accounting system is that it records *all* the financial transactions. Before starting to look at the way in which computers can be used to help with the accounting of small businesses, let's try and get a feel for what sort of accounting is required. Small businesses tend to divide themselves up into three categories:

- 1 The cash-only business, where all receipts and payments are in cash and settlement is immediate;
- 2 The cash settlement business, where all receipts and payments are made in cash, but where there may be a period of credit between the debts being incurred and their settlement;
- 3 The business that has its own bank account and where many of the settlements are by cheque. In this case there is almost certainly a fair proportion of credit trading as well.

These three categories can each also be subdivided according to their size and the number of transactions. The greater the number of transactions, the more important the book-keeping becomes as there is less chance of you keeping them all in your head at once.

So what can you actually do to control the accounts in your business? Let's start by looking at a one-man cash business where a diary would give a perfectly adequate record. The owner can probably rely on his memory to fill in any details not in the diary (if he can't trust his memory, all he has to do is to write a short 'narrative' for each entry as a 'reminder'). If there is a need for an engagement diary anyway, why not just set aside part of each page for the 'money diary'?

Now, for ease of future reference let's separate the receipts from the payments. By tradition, receipts go on the left and payments on the right of the page. Now you have the bare bones of a cash book without even noticing that you are 'book-keeping'! All you need to make it into a full-fledged Cash Book is to 'balance it off' from time to time. This gives you the advantage of being able to check that the amount of cash 'in hand' agrees with the balance in the cash book so checking the accuracy and the completeness of the record.

There are many diaries on the market with cash columns on each side of the page to make this easy, or if you don't want to mix the money and the other entries, there are others with a separate section for 'expenses' which can easily be modified. Or you can go all the way and have a separate cash book, in which case this cash book and a cash box form the whole book-keeping system, and perfectly adequate it would be too!

The next refinement to add, if you are to have your accounts prepared and audited for tax (or any other) purposes, is to keep all the supporting papers such as bills and receipts so that the accountant can check the diary and satisfy himself that it is complete. If your business is one where you make out bills for customers, or give them receipts, then it is just as well to keep copies (in a duplicate book perhaps) of these as well.

Our whole accounting system now looks like the cash book shown in the diagram. If you show the money you

DUPLICATE
RECEIPT
BOOK

FILE OF
PAID
BILLS

CASH BOOK

Receipts this side

Payments this side

date	Narrative	£p	date	Narrative	£p
	B/Fwd	5			
Mon	Takings	100	Mon	Goods Rent	60 20
Tue	Takings	120	Tue	Petrol Bags Goods	15 7 110
Wed	Takings	130	Wed	Repairs	25
Thu	Takings	175	Thu	Wages	55
Fri	Takings	130	Fri	Banked	360
				C/Fwd	8
		660			660

▲ The vital information held by a cashbook

started with ('B/Fwd') as the first 'receipt', and the money left at the end of the week ('C/Fwd') as our last 'payment', the two sides of the cash book must 'balance'.

Computers? Who needs 'em?

But what has all this to do with computers? Nothing! Yes, this is a computing magazine, but you can only use a computer when you understand what you want it to do and how it is going to be able to help you. This month we have looked at a system where the computer is not needed. Next month we will look at a more complex system where the computer starts to be of use. Finally we will look at full accounting programs, and by then you will have a clearer idea of what you might want and how to set about getting it.

● *Ian Berry is a senior lecturer in the Department of Accounting and Business Computing in the Portsmouth Polytechnic Business School.*

EXIT

Countdown to counting

Early man had an elementary number sense, but no number words – in the same way that birds know when an egg has been taken from their nests. Even when number-words were invented they couldn't be recorded until number-symbols were invented. Did you know that even the ancient Greeks who gave us philosophy and geometry had no number symbols? They used letters with a superscript: alpha-primed=1, beta-primed=2 and so on.

There were many different sets of early number symbols, but you only need to consider Roman numbers, which are typical, to see that they don't lend themselves to adding up – let

alone any more complex calculations – without great difficulty. Indeed you could say that the Roman abacus was the earliest form of computer, and it was neither easy nor fast to use!

The Romans got round this problem by using slaves as a form of analysis – each activity was looked after by a different slave, so if they wanted to know how much they had spent on transport asked the transport slave, or on rents the rent slave. This was cheap since every Roman who had anything worth counting had a good supply of slaves, but it would definitely not be cost-effective today!

DiSTRaCTIONS

"Distractions" is a Games compilation Disc, designed to help you escape from the drudgery of word processing. The THREE programmes chosen give you everything from Shoot-em-up Mazes to saving Great Britain from rogue computers, they'll also give you problem solving to satisfy even the MENSA minds among you!

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Money Manager Plus is very much easier and more direct to use than other accounting systems costing many times more, and provides features that would be difficult or impossible to program using sophisticated database/spreadsheet/graphics packages. Indefinite telephone support is included free of charge, because even novice computer users require so little!

To run the system you just switch on, load **Money Manager Plus**, select a data file, make new entries in any order that suits you (or amend existing entries), produce a few reports to check the current financial situation, and then save the data for the next time you need to use it. You may have any number of data files (or sets of accounts) and store several on one disc. A data file contains 12 months of data, which may be rolled forward month by month.

Up to 300 separate transactions may be entered per month.
Each entry consists of:

- The day of the month, eg, 23rd of June
- Account number, one of up to 9 defined by you to suit your circumstances eg 1= Barclays, 2= Visa, 3= Cash etc.
- Cheque or reference number, eg ABC123
- Class code, one of up to 50 defined by you to suit your circumstances eg o1= Overheads, o1= Rent, o2= Heat/Lighting, o2= Stationery etc. or m0= Motoring, m1= Petrol, m2= Road Tax, m3= Maintenance etc.
- Descriptive text eg, "Tax Rebate", "Refrigerator", etc.
- Optional single-character mark as an extra identifier, eg, b= business, p= private, etc.
- Account reconciliation marker.
- The amount of the transaction, debit or credit.
- Optional VAT indicator, eg exempt, zero, full or part rated. If VAT is not relevant it may be ignored.

You may select categories of entries according to account, class and mark (eg all bank account entries, or all motoring expenses, or all cash account business expenses etc.) and produce reports on the screen or printer as follows:

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SPIES, SLEUTHS AND STARS

Tony Flanagan falls head over heels in love with this month's new games releases

HEAD OVER HEELS

£14.95 • Ocean • 061-832 6633

Head over Heels is an arcade adventure in the same mould as Batman – but better and wackier. Something's rotten in the Blacktooth empire, it seems, and it's got nothing to do with decaying molars. Four planets lie enslaved and await liberation. Sent by the planet Freedom, naturally enough it's your task to... er... free them. To do this you have to find each planet's crown, lost when Blacktooth first pierced the old gums, as it were.

PLUSES

- ☐ Responsive keys (also joystick option)
- ☐ Good sound effects
- ☐ Stylish graphics
- ☐ Good plot and compelling objectives
- ☐ Attractive and inventive puzzles

MINUSES

- ☐ People wonder why I keep throwing doughnuts at them
- ☐ I'm being followed by a white rabbit – perhaps I should give this game a rest for a few hours?

GRAPHICS
ADDICTIVENESS



LASTING APPEAL
VALUE VERDICT



In this game you control two characters, Head and Heels respectively. Head is better in the air than he is on the ground; with Heels, however, it's just the reverse.

Uniquely, you can swap from Head to Heels and back again at whim, which gives the game an extra dimension.

Together, however, Head and Heels are formidable... well, as formidable as a symbiotic relationship can be (pardon the French). For when one jumps on the other they become one (sounds very much like the SDP-Liberal Alliance). Getting the act together, however, is far from easy (just as I said).

First you have to guide your 'spies' through a series of castle rooms all in 3D and marvellously detailed. Most rooms require you to solve some problem or another, whether it's simply finding a way out, avoiding the odd impalement or two, or dodging the castle's robotic guardians.

Some rooms are connected by a teleport system, something you may not have noticed if you've been in any dungeons recently. Various objects can be picked up along the way. Cuddly stuffed rabbits can provide extra lives, shields, springs and speed. A hooter can be used to fire doughnuts which, against all the laws of physics, immobilise most things that get in their way. And there's a bag to carry any useful objects in.

Head over Heels is obviously the work of a delightfully warped imagination. It's bizarre, humorous and dangerously compulsive. If the game doesn't numb yer buttocks nothing will!

THE FOURTH PROTOCOL

£15.99 • Ariolasoft • 01 836 3411

With election fever running high at the moment, this game seems fortuitously appropriate. Of course, those devious vodka-swilling Russians are at it again. This time they're out to destroy NATO by destabilising the UK. The fact that it's destabilised already is beside the point.

The plan is to smuggle a nuclear device into Britain, explode it before the general election and blame it on ze capitalist imperialist swine, that is, the Americans. Of course, this will automatically ensure that a hard-left government is elected (the Militant Tendency I suspect); Britain will then give NATO the two-fingers and promptly set up a cosy totalitarian state (so what's new?).

As John Preston, MI5 investigator, it's your olympian task to foil the Soviets' dastardly plan – Plan Aurora.

There are three games altogether packed with enough code-breaking and puzzles to keep you scratching your head for hours. These can be played at random initially, but need to be played in order if the trilogy is to be completed successfully. Clues found in one game may prove essential in the next.

In the first game, *The Nato Documents*, some important papers have been leaked. To find out who the phantom leaker is, as it were, you must familiarise yourself with the Cencom (central communication system) indicated on the screen by several icons. By using these, you can access memos, reports and files, utilise the surveillance system and even take or make telephone calls.

The Bomb, which is the second game, is more like a traditional adventure but an icon system replaces the more usual simple text commands, and with great effect. In this game your far from simple task is to locate the bomb, which could be anywhere in Britain. Fortunately, there are taxis, buses and trains you can travel on but don't forget your map of the underground!

The final game, *The SAS Assault*, you are given a map of the building in which the bomb is hidden. Equipped with weapons, tools and, of course, a Geiger counter, you must get past the KGB guards who are there to defend the nuclear device and defuse it.

You'll need a little time to familiarise yourself with all

PLUSES

- ☐ Icon and menu system is quick, efficient and easy to use
- ☐ Lots to do and just as much to explore
- ☐ An excellent combination of adventure and strategy

MINUSES

- ☐ The playguide is not comprehensive enough
- ☐ Contains imperialist anti-Soviet propaganda!

ATMOSPHERE
INTERACTION



CHALLENGE
VALUE VERDICT



▲ Oops! Silly me. I suppose I should have been more careful.

OH DEAR, YOU'RE DEAD. YOU HAVE FAILED IN YOUR MISSION TO STOP PLAN AURORA. THE BOMB GOES OFF!

HOLLYWOOD HIJINX

£24.95 • Infocom/Activision • 01-431 1101/2992

How wonderful to have a rich aunt and uncle! Even better when they leave it all to you! Well, if you can fulfil the conditions of the will, that is. Spend one night on the estate, find a treasure or two and it's all yours, buddy.

Hollywood Hijinx amounts to a bizarre treasure hunt, flavoured with allusions to the great Hollywood movie-making empire and its larger-than-life personalities, not least among them, Uncle Buddy Burbank.

The night begins in front of Aunt Hildegard and Uncle Buddy's house. All you have with you is a flashlight, Aunt Hildegard's letter detailing the terms of the will, and Uncle Buddy's photograph on the back of which is penned a few cryptic clues and some friendly avuncular advice in verse form.

The grounds around the house are extensive. First there is Aunt Hildegard's beautiful gardens filled with roses. There is also a maze which, of course, is easy to enter than it is to exit. And further away there is the cliff edge which, similarly, is easier to get down than it is to get up.

The booklet which accompanies the game is genuinely amusing, revealing as it does the lives of the Hollywood set – tales of psychotic gerbils and reviews of such films as

Meltdown on Elm Street.

Unless you're a Hollywood buff, it's likely that many of the allusive jokes will prove elusive. It's also likely that the UK adventurer will find the flavour of this package unpalatable, especially when there are games like Moonmist competing for attention.

Nevertheless, Hollywood Hijinx comes up to the usual Infocom standards and is well worth playing.



PLUSES

- ☐ A good skit on Hollywood memorabilia and the Hollywood celebrity
- ☐ Healthily disrespectful

MINUSES

- ☐ The theme lacks appeal
- ☐ The humour relies on precise knowledge of the conventions it knocks

ATMOSPHERE
INTERACTION



CHALLENGE
VALUE VERDICT



MOONMIST

£24.95 • Infocom/Activision • 01 431 1101/2992

If you've ever fancied yourself as a ghostbuster then this might be the game for you. Let me add, however, that Moonmist is nothing like that appalling Ghostbusters film (Well I liked it. Humph – Ed) that had us gripped to our watch-faces not so long ago.

Despite its transatlantic provenance, Moonmist is very English (in an American sort of way). Indeed, it's nothing less than an American tourist's dream. All the ingredients are there: an English Lord, a haunted castle, and the beautiful Tamara whose life, it seems, is in great danger.

But who is trying to kill her? Is it indeed the White Lady of Tresyllian Castle or simply some crank who likes dressing up in women's clothes? Well friends, that's for you to find out!



You assume the role of a famous American detective, specially invited over from the States by Tamara herself, your bosom buddy from way back when.

On arriving at the castle, Tamara wastes no time in introducing you to a variety of bizarre characters, all of whom you've every right to be suspicious of. There's the flirtatious Iris Vane, a stylish London deb; the inscrutable butler, Bolitho; the eccentric genius, Dr Wendish; and, of course, Lord Jack himself, Tamara's fiancée.

The game allows a great deal of interaction. Not only can you hold meaningful conversations with the characters but you can also ask them about each other. Should your voyeuristic instincts get the better of you, characters can be followed or simply spied on from behind walls.

There are lots of rooms to explore and the usual range of puzzles. There's also a secret passageway, just as one might expect in any self-respecting Cornish castle.

The package includes a comprehensive playguide and six traditional ghost stories that won't exactly make you quake in your boots but do make enjoyable reading.

Moonmist is more than intriguing, it's compellingly addictive. An excellent adventure!

EXIT

PLUSES

- ☐ Plenty of atmosphere and strong plot
- ☐ Good characterisation
- ☐ Easy to get into and once it's got you, it's got you!

MINUSES

- ☐ I'm losing sleep

ATMOSPHERE
INTERACTION



CHALLENGE
VALUE VERDICT



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Keyed files are maintained automatically in key sequence, with never any need to sort. You can have unkeyed files too, where records can be inserted at any point in the file.

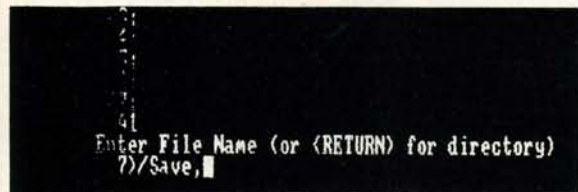
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IF YOU SEE SID

Picture the scene: there you are, good old SuperCalc clattering away like a good 'un on drive M, doing wonders on next year's budget. Midnight strikes, you sigh happily, save the file, switch off and go to bed. Next morning you restart to find your data disc blank – you had saved it all to drive M instead of A and lost the lot.

What you need is for the prompt you get after the 'Save' command to remind you to stick that all-important 'A:' in front of the filename. In theory, it isn't difficult. All you have to do is get into the program, find where the error message is stored, change it and save the new version. Let's take the SuperCalc example and follow it through, but you should be able to use this technique with any program you like – even LocoScript.



▲ SuperCalc's prompt when you give it the 'save' command

The first job is to start your PCW up using the CP/M+ disc in drive A. Now you need to get the necessary utility program into drive M – SID.COM from side 3 of the PCW master discs. To do this, when faced with the A> prompt and your copy of the CP/M startup disc in the drive, run PIP with the command PIP [RETURN] – you will see the asterisk prompt. Now put your copy of side 3 of the PCW discs in drive A and type:

```
M:=SID.COM [RETURN]
[RETURN]
```

Now you are back at the A> prompt, and ready for the clever bit.

Down in the dumps

To do the SuperCalc example, you need to work on the file SC2.COM which contains the program. Copy SC2.COM from your SuperCalc work disc to a spare disc – never use SID on working copies of programs since if things go wrong you will need to go back to the old version.

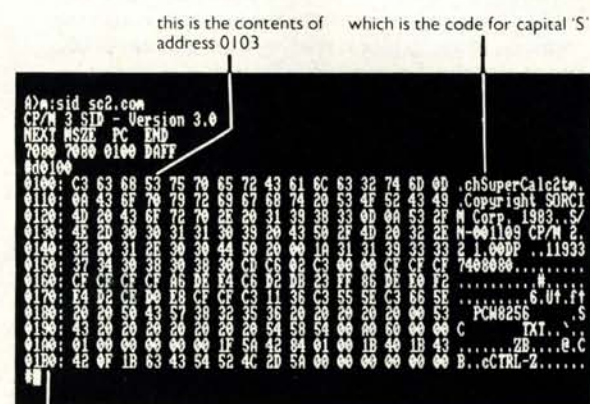
With this new scratch copy on the disc in the A drive, type

```
M:SID SC2.COM
```

This will automatically put SID to work on your program and leave you with a neat but cryptic display that says NEXT MSIZE PC END, with mystery numbers underneath and a # prompt sitting there waiting. Write down the hex number under NEXT (see the box for what hex numbers mean) for future reference – this tells you where your program ends.

Don't you like the way your PCW talks to you? Mostyn Davies explains how to change it with the help of CP/M's SID program.

Every PCW program has its quota of unhelpful prompts and error messages. Take PIP for example: rather than say 'sorry, your disc is full' it says 'ERROR: DISK WRITE NO DATA BLOCK'. Wouldn't it be nice if you could change these messages to suit your own tastes – humorous, obscure, or just helpful. With a little ingenuity, and the help of SID, you *can*.



the start address of each line of code

▲ SID starting up and dumping out the first chunk of SuperCalc

SID is not a very friendly character. He was designed as a programmers' tool, and takes very obscure commands. The Amstrad manual says almost nothing useful, so if you want to learn more than is printed here you will need to buy a book like 'The Amstrad CP/M Plus' by Clarke & Powys-Lybbe (£12.95, MML Systems Ltd, 01-247 0691). If you give a wrong command, SID only says '?' by way of an error message.

The Open Sesame command d0100 [RETURN] will amaze and delight you with a screenful of code numbers and, on the right, gobbledegook characters mixed up with the odd word that makes sense. The d stands for 'dump', and the code is just that: machine code written in 'hex bytes' – see the box for details. The section on the right of the screen does its best to print the text characters corresponding to these codes. When

Putting on the HEX

If you run SID, you can't have failed to have noticed that the number pairs it prints on the screen are a bit strange. Some of the numbers are conventional digits, but some are letters of the alphabet. This is a sure sign of 'hexadecimal' numbers – 'hex' for short, or 'base 16' to all students of modern maths.

If you can count in 10's you can count in 16's just as easily, and that's really all that hexadecimal is about. In hex, you use the digits 0 to 9 as normal, and then the letters A to F to correspond to the numbers 10 to 15 respectively.

In a decimal, a number like 234 means $2 \times 100 + 3 \times 10 + 4 \times 1$. In other

words, the digits stand for ones, tens, hundreds, thousands and so on. In hexadecimal, the digits stand for ones, 16's, 256's, 4096's and so on, with each column 16 times bigger than the last one. Thus 234 in hex is the number $2 \times 256 + 3 \times 16 + 4 \times 1$, or 8244 in decimal.

So, 10 in hex is 16 in decimal. 1A (hex) is 26 (decimal), and FF (hex) is 255 (decimal). Hex may seem awkward to humans, but computers love it because just two digits can count to 255, where decimal can only get to 99. Two hex digits are called a byte. One hex digit is called a nybble (honestly!).

this is address 1B5F

```

#d1b40
1B40: 72 20 43 6F 6C 75 6D 6E 20 52 61 6E 67 65 0A 45 r Column Range.E
1B50: 6E 74 65 72 20 46 69 6C 65 20 4E 61 6D 65 20 28 nter File Name (
1B60: 6F 72 20 3C 52 45 54 55 52 4E 3E 20 66 6F 72 20 or (RETURN) for
1B70: 64 69 72 65 63 74 6F 72 79 29 00 44 65 6C 65 74 directory) Delet
1B80: 69 6E 67 2E 2E 00 04 11 1B 00 52 52 6F 77 2C ing.....RRow
1B90: 00 06 1B 43 6F 6C 75 6D 6E 2C 00 AD 1B 46 69 6C ...Column,...Fil
1BA0: 65 2C 00 09 1B 80 18 04 61 79 20 62 70 1B 04 61 e.....ap bp..a
1BB0: 70 20 72 79 1B 04 63 68 12 02 4F 1B 04 55 1B 0C p rp..ch..O..U..
1BC0: 0E 06 1A 04 7B 1B 18 01 83 68 12 46 72 6F 6D 3F ..t...h From?
1BD0: 20 45 6E 74 65 72 20 63 65 6C 6C 00 04 CB 1B 06 Enter cell.....
1BE0: 0E 0C 1E 1A 16 41 17 16 7E 17 14 16 23 1F 1E 0A .....A.....#
1BF0: 16 38 22 12 18 03 58 70 20 4A 71 18 02 01 6C 20 .8...Xp Jq...l

```

▲ The 'save' prompt text is found in the block starting at 1B40

the code numbers represent real words, you can read them, otherwise you are looking at the guts of the program itself.

You are now faced with the # prompt again. If you type d [RETURN] the next section of memory is displayed for you, going on from where the last block finished. Every time you do this, you step through the memory, block by block, starting from address 0100. Keep using the d command and keep your eyes open, scanning the right hand side of the screen for the message you want to alter. Be patient, it's in there someplace!

The leftmost column shows you the memory addresses, and if you go on long enough you'll finally pass the number under NEXT that you noted down earlier. That's the end of the program, and there's no point going any further. You can go back to the beginning just by typing d 0100 [RETURN], which will start dumping again from 0100. Of course, you can use any address you like after the d - d 1 F 3 4 dumps a block of bytes from address 1F34.

A.E.T.

Acronym Explanation Time: PIP stands for 'Peripheral Interchange Program', and SID for 'Symbolic Instruction Debugger'. Are you any the wiser?

Hacker Note

Another two interesting commands of SID's are 'L' and 'A'. L0100 Lists out the memory from address 0100 as 8080 assembler mnemonics, and A0100 allows you to enter and Assemble 8080 mnemonics into that address.

How programs are stored

Many of the more complex programs you can buy are stored in several files on the disc, so it might be difficult to find out where a message is that you want to change.

The first place to look is always the .COM file. If you run a program (like SuperCalc) by typing 'SC2' at the A> prompt, then that program will be stored on your disc in a file called SC2.COM. If you list out the disc directory, you will see that file. However, there may also be other files which end '.OVR'. These too contain program code, and you may well find the message you are looking for hidden

in these files instead of the .COM file.

LocoScript is, of course, different in all major respects. If you want to alter any of the text that appears in the menus, you will need to look through the files }something LOCO.EMS (the something is a two digit number which depends on which version of LocoScript you have) and SCRIPT.JOY. Even then you may not find the text of the menus verbatim, since LocoScript stores its internals in a fairly obscure way. If you ever saw issue 1 of 8000 Plus, the doctored menu on the cover photo was produced in this way.

Bring on the substitutes

For the customised SuperCalc, you want to change the screen message that comes up when you give the /Save command. Normally this says 'Enter File Name (or <RETURN> for directory)'. So, looking through the file SC2.COM with repeated d's, this text finally appears in the block starting at address 1B40. How about changing the text in the brackets to read '(don't forget the A:)' instead?

Look back to the screen to find the start address of the text you want to change: looking at the left hand column of addresses, pick up the four character address number on the relevant line, and count across, in hex, until you reach the first letter to be changed. In this case, the opening bracket is at address 1B5F.

Now to substitute the new text. This is done with the 's' command. The one really important thing to remember is that the new text must be no longer than the old text. If it is any shorter, you must pad out the end with spaces to make it the same length. Type s 1 B 5 F [RETURN], and you will see the address redisplayed with the code it currently contains beside it.

```

#s1b5f
1B5F 28 "(don't forget the A:)"
1B7A 00
#d1b40

```

```

1B40: 72 20 43 6F 6C 75 6D 6E 20 52 61 6E 67 65 0A 45 r Column Range.E
1B50: 6E 74 65 72 20 46 69 6C 65 20 4E 61 6D 65 20 28 nter File Name (
1B60: 6F 72 20 3C 52 45 54 55 52 4E 3E 20 66 6F 72 20 or (RETURN) for
1B70: 64 69 72 65 63 74 6F 72 79 29 00 44 65 6C 65 74 don't forget the
1B80: 69 6E 67 2E 2E 00 04 11 1B 00 52 52 6F 77 2C A:) Delet
1B90: 00 06 1B 43 6F 6C 75 6D 6E 2C 00 AD 1B 46 69 6C ing.....RRow
1BA0: 65 2C 00 09 1B 80 18 04 61 79 20 62 70 1B 04 61 ...Column,...Fil
1BB0: 70 20 72 79 1B 04 63 68 12 02 4F 1B 04 55 1B 0C e.....ap bp..a
1BC0: 0E 06 1A 04 7B 1B 18 01 83 68 12 46 72 6F 6D 3F p rp..ch..O..U..
1BD0: 20 45 6E 74 65 72 20 63 65 6C 6C 00 04 CB 1B 06 ..t...h From?
1BE0: 0E 0C 1E 1A 16 41 17 16 7E 17 14 16 23 1F 1E 0A Enter cell.....
1BF0: 16 38 22 12 18 03 58 70 20 4A 71 18 02 01 6C 20 .....A.....#

```

▲ Using the 's' command to modify the message, and checking the results.

To enter the new text, just type it in preceded by a double-quote mark:

```
"(don't forget the A:)"
```

type six spaces afterwards to match lengths, and press [RETURN]. SID thinks you might want to change more text, so it prompts you with the next address for you to alter. Since the modifications are now all done, type a full stop then [RETURN] to leave substitution mode. You now see the # prompt again.

To check the changes, dump the new block to the screen again with d 1 B 4 0 - remember 1B40 is just the address used in this example, you should use whatever one you noted down for the text you are changing. You can see the changed message in place. If it looks wrong, use the substitution process again to modify it until it is OK.

The only thing left to do is to save the new version to disc and get back to CP/M. This is very simple, using SID's 'w' (for 'write') command. Type w followed by the name of the file to hold the new version. For this example, write the file back to SC2.COM, which will erase the old version on the disc. So:

```

#wsc2.com
0000h record(s) written.
#tc
#)
#)

```

▲ Saving the new SC2.COM and leaving SID

```
wsc2.com [RETURN]
```

does the trick. To leave SID, press the [STOP] key, and you are back at CP/M's friendly A> prompt.

You use the new version of SuperCalc quite normally. Typing SC2 [RETURN] runs the modified program, and you can see the prompt has been changed in the /Save command.

```

1B:
16:
17:
18:
19:
Enter File Name (don't forget the A:)
?) /Save,

```

▲ SuperCalc's modified prompt when you give the save command - never again will you forget the A: filename prefix

Health Warning

The methods described in this article are quite reliable, but there are a couple of potential pitfalls.

If, when you are modifying a program, you accidentally change part of it which is not a simple error message, you could find that when you run the modified version the machine crashes. Before you use SID, always make sure you keep a copy of the unchanged file on a backup disc in case anything goes wrong. A serious program crash can only lose you the contents of the M drive.

Don't forget: when you are substituting some text of your choice for an old prompt or error message, the new version must be exactly the same length as the old one. You must add trailing spaces to match the lengths if the new text would be shorter.

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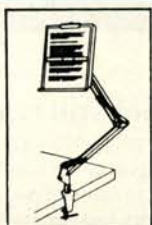
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LOOKING AFTER THE POUNDS

After spending a few hundred pounds on his PCW, Alec Rae looks at two packages to help him control his lavish lifestyle and recoup his costs

An eternal dream of many prospective PCW owners is that they will use their machine to sort out their personal finances. Usually most people give up as soon as they realise that doing this will prove beyond doubt that they could not afford to buy the PCW in the first place. This month sees the release of two packages which take different approaches to this problem – Money Manager Plus from Connect Systems and HFP from Datavise. The first is essentially a recording system, whereas HFP attempts to set and monitor budgets. Which is the best for you?

Money Manager Plus £39.95 • Connect Systems • 01-743 9792

As the name suggests, Money Manager Plus is an enhanced version of Connect Systems' best selling Money Manager program – 6,500 sold to date, they claim. This sold well because it was a simple yet effective way of keeping track of where the pennies were going. Some small companies even found they could run their books using Money Manager. If you already own the original Money Manager and want to upgrade to the new version, the price drops to £24.95.

Now, with the advent of their new souped-up version, the program's aspirations to be a fully fledged business accounts package must be taken more seriously. Instead of a limit of 100 entries per month it can now handle 300 entries and it is claimed that it runs four times faster than the old package. But is this enough to tackle 'the books'?

Family ruin

Once you start putting the information into your data file you have another option – the 'mark' – which can be put against a specific item and which will allow all items with that mark to be called up. For instance a particularly brave married couple might put an 'h' against hubby's spending and a 'w' against that of the wife. Another good way to start a major family row is to make uncomplimentary comments about your in-laws.

The actual method of inputting information could be regarded as a little tortuous. When you want to enter a piece of information a small arrow appears below the place where the entry will go. When you have decided

that your entry is correct you press [ENTER] and the entry appears in the correct place. This is useful when you are amending an entry but could get irksome when you have a lot of new details to enter.

Where it does make life easier for you is when you want to enter your Standing Orders. A special file is kept with all your Standing Order details for the year which you can call up at the correct time of the month with the minimum of effort.

Once the entries are in you can still shift them around the page and you can sort them by date. It also thoughtfully tells you how many entries you have made in a month.



Powerful but still humble

Even in its new enhanced incarnation Money Manager Plus has not forgotten its humble origins. There is obviously a fair amount of overlapping in the functions of personal accounts and simple business accounts packages, but software manufacturers in general have not attacked the personal side of the market with the fervour that Connect Systems have.

Manufacturers will often claim that their accounts package can be used to sort out your own finances but they seldom go to the trouble of showing in detail how this should be done.

While the program does have a perfectly adequate manual the makers were clever enough to realise that the easiest way of learning how to use a program is working with a practical example. To this end they include a couple of examples of yearly accounts which the users can take as a model or adapt for their own needs. The two examples are of a typical set of business accounts and of a set of personal accounts.

Keeping options open

Once you have chosen your first option from the opening menu, the program uses the 'pester you with questions until I have all the answers' method for tasks like setting up a new data file. While this could be regarded as slightly condescending it does ensure that it is virtually idiot-proof – a reasonable aim for this kind of program.

The data file covers a year – 300 entries a month for 12 months – although you can extend this by a month at the end. This loses the first month's figures so it's an idea to commit them to archive by saving details to disc (separately from your current data file) so you can look back over your finances over many years.

Business users would need to consider carefully if this number of entries was large enough and flexible enough to cover their needs although even 8000 Plus writers would be pushed to exceed 3600 entries in a year for personal finances.

At this point you can choose to use or amend the same Account Codes and Class Codes as another file. Account codes are numbers used to automatically attribute spending to one of nine available accounts. This keeps track of activity in your various bank and building society accounts and credit cards. Business users can also keep track of petty cash and it also can be used to handle credit purchases from a small number of suppliers although it is limited for this purpose. It is the limitation in handling unpaid bills that would cause the major problems for business use.

Class codes are a combination of letters and numbers that allow you to keep track of where the money is going. If you spend a lot of money on drink for instance you can create a special DRINK account which you

would call 'd0'. You can then decide on have subsections - d1 for Beer d2 for wine d3 for whisky and d4 for gin. You might regard this only useful to journalists but remember you can decide for yourself what the classes are up to a total of 50.

Breaking down's not hard to do

The main advantage of this is that you can use these accounts and classes to break down your expenditure in a variety of ways, so it is wise to choose your accounts and classes carefully to allow you to get at the information that you will want.

Having said that, it is relatively simple to adapt the set up even when it is in use since it is possible to change the title of accounts or classes if they don't suit you. It does suggest sensibly enough that you don't try to erase a classification from an existing file if it already has entries against it although with the ability to delete and amend your entries or insert new ones you should be able to get round most problems if you change your mind late.

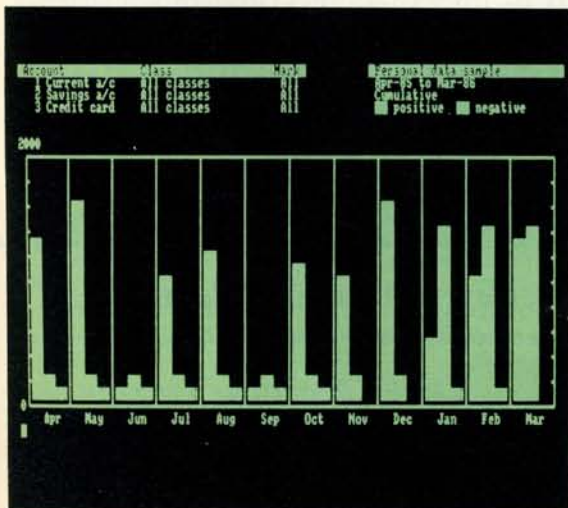
This ability to change, amend or insert entries at any time will, of course, upset the purists in business accountancy. Standard practice is that any mistake must be carried round like the Mark of Cain presumably to give your accountant something to snigger at. This program does not follow this, so business users would have to decide whether that worried them or not.

What goes in, must come out

Then you have the fun of getting this information out again and using it to the best effect. There is plenty of scope in Money Manager Plus to do this. The 'Detailed Statement' option asks you a series of questions to discover what you want. You can pick the months, the accounts, the marks and the classes you want.

You can choose a Monthly Analysis (the figures for classes from month to month) or Account Analysis (the figures for class in each account). You can easily find out Account Balances and discover various Account Statistics including the number of entries, the starting and ending balances, maximum and minimum balances, average balances, total and income and expenditure and cash flow for the month. Just see if your bank manager will argue with you then.

There is even a facility to produce Bar Charts from your figures. The real practicality of this, especially for personal finances, could be questioned, but it does allow you to be unbearably smug.



The last and most invaluable method of getting information out of the program is the 'Search for a String' option - the faithful old 'find' facility. This checks for any string (a group of words or figures) so that you can find that lost payment the company are questioning

PLUSES

- ☒ Simple to use with the minimum of accountancy or computer knowledge. Getting close to being idiot-proof.
- ☒ Simple but comprehensive methods for getting details out of the program.
- ☒ More than adequate to handle personal finances.

MINUSES

- ☐ No audit trail integrity (you can change anything you want at any time.)
- ☐ Could be limited for all but the simplest businesses.

RANGE OF FEATURES
EASE OF USE

PERFORMANCE
DOCUMENTATION

8000 PLUS VALUE VERDICT

you about 18 months after it was supposed to have been paid.

For business users the ability to handle VAT is paramount. MMP can handle all the necessary computations. It can ignore VAT entirely and handle 0%, 15% (or any other standard rate the government wish to choose) or mixed taxable and non-taxable amounts.

The other feature that really is useful for both business and private users will be the bank reconciliation facility - a very simple method of keeping track how much money you actually have in the bank. This is a facility most people will find of real worth and is surprisingly lacking in a number of accounts programs.

Reconcile entries									
Reconcile entries: Mar-88									
Unreconciled entries in previous months									
Reconciled starting balance on 1-Mar-88									
Day	Ac	Ref	Description	Mo	Debit	Credit	Reconciled	Balance	
1	1	150	h1 Mortgage	y	132.50-		3,352.42		
1	1	150	h3 Gas	y	55.00-		3,297.42		
1	1	116	h1 Petrol	y	43.40-				
1	1	116	h1 Food	y	50.50-				
1	1	117	h1 Alison	y	50.50-		3,254.82		
1	1	118	h1 MISCILLAN.	y	8.40-		3,196.32		
14	1	118	s1 Gross sal.			1,604.00			
14	1	118	s2 Income tax		535.65-				
14	1	118	s3 Superann.		91.68-				
14	1	118	s4 Mat. Ins.		71.50-				
14	1	118	s5 Health Ins.		16.50-				
14	1	118	t0 to 1		970.27-				
14	1	118	t0 from 6			970.27			
15	1	119	h1 Food	y	66.00-				
15	1	119	h1 Cash (card)	y	50.00-				
15	1	127	t0 to 3		100.00-				
15	1	127	t0 from 1			100.00			
15	1	126	h6 Electricity	y	90.18-				
15	1	126	s1 Gross sal.		141.60-		600.91		
15	1	126	s2 Income tax		40.85-				
15	1	126	s3 Superann.		49.81-				
15	1	126	s4 Mat. Ins.						

To complete this pleasing little package it comes with a simple Install program to help you create your own self-booting disc.

Verdict

The program works well within the limits it has set itself. It is more than adequate to handle personal finances and will provide a simple and easy to use solution for a small business that is simply wanting to keep track of its finances.

HOME FINANCE PROGRAM

£24.95 • Datavise • 039 6778 215

Some of the bravest words written in a computer program manual comes in the Home Finance Program documentation. It says, "With the HFP the chances are you are going to save more money than you thought possible." It then goes on to suggest that you open a bank or building society account to stash all this extra cash. They obviously don't know the 8000 Plus editorial team.

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goes is fair enough but what if you want to go further and use it to plan your finances? A really organised computer person should be able to budget for a year and allocate money to priorities.

This is the theory behind the Home Finance Program from Datavise. The manual spends a lot of time explaining how to organise your finances to fit in with the program and explaining the difference between amounts that have been budgeted, earmarked, allocated or spent.



"INGENIOUS PROGRAM THIS - IT WRITES THE BEGGING LETTER TO THE BANK AS WELL..."

A major aim of the makers is to make the documentation absolutely fool-proof. Unfortunately this means that they are inclined to overdo the level of detail (most people who have used LocoScript will know that 'the light green rectangle is called the cursor') so that anyone even semi computer-literate will find it tiresome to plod through the rather lengthy document.

What makes it worse is that it is not obvious how to use the program without plodding through the manual. Once you are into the program it seems to work in a reasonably logical way but the unhelpful naming of menu options doesn't help those who only consult manuals in a dire emergency.

Where do I put all this money?

Before you can use the program you have to set up a series of accounts and headings - opening a Folder, as HFP says. Once these are set you cannot change them, so a bit of experimentation would not go amiss. Space is allowed for up to 15 bank, building society or credit card accounts (you'll need these accounts with all the money you'll save presumably) and these can be grouped in any

FOLDER: ALEX		FINANCIAL SESSION		21 Apr 87 HFP	
HEADING	BUDGETED	EARMARKED	ALLOCATED	SPENT	AVAILABLE
Clothes	1,500.00	1,000.00	500.00	700.00	-200.00
Heating	1,250.00	1,250.00	0.00	0.00	0.00
Holidays	5,200.00	700.00	4,500.00	0.00	4,500.00
House	350.00	350.00	0.00	0.00	0.00
Transport	3,500.00	3,400.00	100.00	34.56	65.44
TOTALS	11,800.00	6,700.00	5,100.00	742.56	4,357.44
Action: █		Tap EXIT for HELP		STATUS active	
Allocate	Clothes	Natwest	21 Apr 87	SPECIAL KEYS	SCREEN OV

order you want over three pages using the Accounts Editor. When you are in what the program solemnly calls 'Financial Session' (entering details of money in and out) you can easily call up these pages and find out how much (or little) is left.

At the same time you choose up to 16 Headings (using the Headings Editor) which reflect the main areas of spending. These are neatly displayed in the 'Overview Screen' which shows the various amounts under each heading.

With HFP you not only keep track of where your money goes you also attribute money to these headings, deciding in advance how much you are going to spend. For instance you can select a heading 'Computer Software' and when your salary arrives you can put aside

£500 for this heading. Then as you take advantage of 8000 Plus's special offers you put the amount spent against this allocated sum and are told how much you still have to spend. When you have spent more than £500 this shows a minus figure.

One consideration in choosing headings is the names you give them. Instead of a difficult to remember number system HFP checks each character entry until it has enough information to pick the correct title. For instance if you only have one title starting with the letter T (Transport) you will be provided with the title as soon as you press the T key. If you have two accounts - Natwest Bank and Nationwide Building Society, for instance - you will have to key in NATW or NATI before it can differentiate. So choose titles as different as possible.

HFP on the trail

You set a budget figure for each heading for a chosen period (a year for instance) and as money is allocated the sum is taken from the budgeted figure for a heading 'Earmarked' which shows what money you still have to find.

Every time you allocate, spend or transfer money you have to fill in all the details including suitable comments. This is called a 'Trail' (it helps you follow what you have been doing) and the program comes with an effective 'Database' facility to find specific entries or trails of all descriptions.

Before you start

The unfortunate side is that you may not want a self-starting disc in which case it is not obvious how to create an ordinary working disc. Thus, if you have just been using a word processor or database, you will lose the contents of your M drive while starting up HFP if you follow the recommended process.

In an effort to be as idiot-proof as possible the HFP has a rather neat install program to produce an auto-booting (self-starting) disc. This is simplicity itself to use, needing the minimum of knowledge of CP/M, and the user is fully prompted for the various disc changes.

One more mysterious facility is a sophisticated Help Screen Editor. The program has a comprehensive series of help screens and you have the ability to change these at will, even using complicated graphics. The manual does suggest that you could translate your help screens into French or even Gaelic if you wanted to. This is not advised unless you can read French or Gaelic.

The manual makes great play of the fact that you cannot erase mistakes that are on the disc. This is standard practice for business accounts packages to preserve the 'integrity of the audit trail'. It does tell you how to get round the problem of corrections but it does seem a bit excessive for a home accounts program.

The company are also proud of the fact that the details are saved to disc very regularly throughout use. This does ensure that you won't lose a vast amount of work if there is a power cut but it does cause regular annoying delays in what is otherwise a quite speedy package.

Verdict

If you are keen to budget and plan ahead this program could be interesting but if you are merely wanting to keep track of your finances there are easier ways of doing it.

EXIT

PLUSES

- ▣ Takes pains to be idiot-proof.
- ▣ Regularly saves details to disc.
- ▣ Good audit trail.

MINUSES

- ▣ In trying to be idiot-proof manual becomes almost condescending. Manual lacks concrete examples.
- ▣ Menu options not obvious.
- ▣ Delays while information is saved to disc.

RANGE OF FEATURES
EASE OF USE

■■■■■
■■■■■

PERFORMANCE
DOCUMENTATION

■■■■■
■■■■■

8000 PLUS VALUE VERDICT ■■■■■

LANGFORD'S PRINTOUT

A page foolishly handed
over to SF author
DAVID LANGFORD who
just happens to own an
AMSTRAD



My ego has just been expanded (unnecessarily, my friends will tell you) by a bag of fanmail from The Old Barn. Somewhere out there, a tiny but select group reads this column and each month manages to smile at both my jokes....

One recent spicy bit was actually a typo, and cowardice may stop me ever again trying to type 'leg-up'. Les Millgate pounces: "Please ask Mr Langford to forward to me telephone numbers of those acquaintances of his who 'try to be helpful and give people a leg-over'." For fear of sexism, I'd better omit his PS restricting the request to "those who have lumpy thighs in their sweaters".

But that's what this magazine's all about. To take computer virgins by the hand and gently lead them towards happy consummation — first dispelling those fears of risky interfacing implanted by folklore, then advising on an ideal choice of software partner, and finally blossoming into steamy examples of the Joy of Computing. I only hope the innocent fun won't be affected by that recent Government warning campaign: is it an ominous sign that some firms already advertise transparent plastic protectives to be worn on your Amstrad's keyboard?

Onward, hastily, to one of those pesky first-time problems related by Paul Delderfield, who's having trouble with headers and footers. These recurring snags are torment for magazine editors. If they're covered every few issues, regular readers complain of repetition; if they aren't, newcomers feel let down. A quick look:

Problem one concerns the exact meaning of 'header'. When it's just a bit of text which you want at the top of one page, there's no point in using the special feature for automatic insertion on every page. Just enter the text as usual, in the

appropriate place.

Problem two: setting up automatic headers is tortuous. First you press [F7] 'Modes' and [ENTER], giving a new screen where you can move between and edit headers or footers freely as on the main screen — e.g. right-justify with [F5], 'Lines'. From this screen, hit [F7] 'Options' followed by [F8] 'Pagination' to set twiddly bits like initial page number. Successive use of [EXIT] gets you back to the main screen. Eventually.

Problem three: headers and footers usually demand page numbers, inserted with [F6] 'Pages' or [+]PN. These need special layout instructions, a bad lapse in LocoScript 1.2. Immediately after the (PageNo) command you must add something like == to centre the number in a space three characters wide, or >>>> or <<<< to right- or left-align it in a space four characters wide, for example.

Fortunately, when this is set up to your liking, you can save a stripped-down document containing *only* your standard covering sheet, headers and layout commands, as TEMPLATE.STD. Then it'll be popped in automatically whenever you create a new document in that group.

Ken Hughes takes issue with my self-pitying moans about the problems of small software houses. "Instead of spending hours trying

copied by anyone." (Honest, squire, I've never copy-protected a program in my life: I believe that to invent new anti-copy devices, leave the program so it can be

Another bright idea

Remember my complaint of an over-bright monitor? Hero reader Stewart McCall searched inside and found a built-in control. "There's a line going down from the tube to a black block. Between this block and the circuit board's mains lead connection is a variable resistor. Turning this will change the brightness range available. It's a case of trial and error: after each adjustment, turn on and start up LocoScript.

No soldering iron is needed and no irreversible alteration is made... but beware. I haven't studied the video circuitry, but there's a chance of high stored voltages even when the machine's not on." Cautious experimenters should make the adjustment a long-term project, altering the resistor only after the computer has been turned off overnight.

preventing users from making backups is a Bad Thing.) "Encourage users to give (yes, give) copies to friends, and post copies on Bulletin Boards. The manual should be included on the disk as a text file."

The idea is 'shareware', whereby you trust people who like your program to send money for upgrades and support. It's a lovely Utopian dream, and works for some outfits in the States... where lots more money and lots more computers are to be found. Three points bother me.

One: most PCW users I've dealt with seem pretty isolated, struggling in a vacuum to make sense of the system. They read occasional magazines but certainly aren't tooled up for bulletin boards. To reach them, the poor old software firm *still* has to pay for those expensive ads.

Two: the system works against perfectionism in programming. It strikes me that the more user-friendly and bug-free you make your software, the less incentive there is for "shareware" recipients to send in that registration fee and claim support.

Three: can shareware turn a fair profit in broke little Britain? The most famous such program, PC-WRITE, suddenly started being marketed like ordinary software when it came here... I wonder why. We visited a pal who reckons shareware is wonderful, and listened as he extolled his favourite packages. "Gosh," we said, "how much did the amazingly cheap registration fees add up to?" He turned bright red! "Er, well, this one's American and sending dollars is a bother, and I don't use these two much really, and I've only just got hold of that, and, er, I'm still evaluating that other one..."

But I'm prepared to be converted... the moment 8000 Plus abandons expensive bookshop distribution and merely puts its full text on a bulletin board and urges you to copy it freely and send in £1.25 if you like it.

This might cheer poor James Manley in Denmark, who wails: "All the other Amstrad mags are available here, but I have to get 8000 Plus sent by friends in England." Although this has nothing to do with computers, I can't resist consoling him with the news that distribution problems are a lot worse in the USA, where big distributors are reportedly refusing to handle noted SF authors like Samuel R. Delany (because his books enter into such taboo areas as my third paragraph). Maybe there are compensations for not living in the wonderful land of dollars, handguns and shareware. **EXIT**

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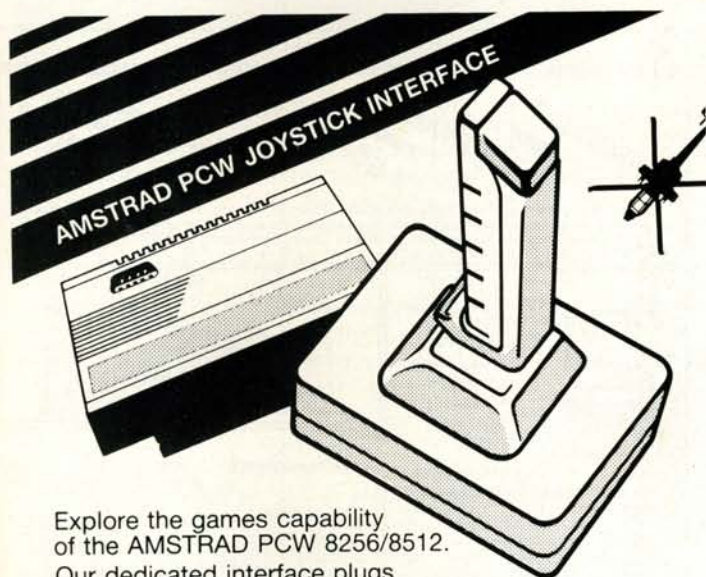
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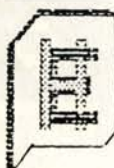
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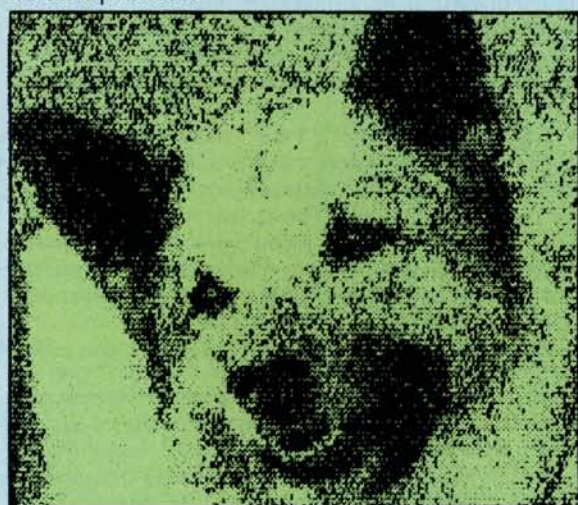


GREEN SCREEN ART

ROMBO DIGITISER

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Rombo Productions of Livingstone already produce digitisers for other computers and have used this expertise to design the new Vidi-PCW. The simple white box fits on to the expansion port at the back of the PCW and comes with a through connector to allow 'stacking' of peripherals. You connect the 'Video In' phono socket on the digitiser to your video camera or recorder using the cable provided.



The company has given a great many choices and options to the user when deciding what picture they want and how it will look. Any frame of a video film can be 'grabbed' – frozen for posterity to be saved to disc or printed. You can have the 'Continuous Frame' option running – a flow of pictures from the recorder or video camera. At the correct moment you press the key and 'grab' the picture you want.

This image can be taken at various levels of detail. The simplest gives two shades for each pixel on the screen (on or off) and the second uses pairs of pixels to identify four shades (on, off and two intermediate). The most complex one integrates 16 successive grabs to give 16 shades – an option that needs a still picture, using the video recorder's freeze frame facility.

Often the simpler images look better on screen than in print while the more complex images may have to be seen on paper before you can recognise what it is. Until you learn the art of recognising a good image, be prepared to produce pictures more like Impressionist paintings than photographs.

To give you greater control over the final result you can choose one of 16 settings for both brightness and contrast. If you are still not pleased you can use the 'Pixel Editor' to tidy up individual points on the screen. Don't be tempted to try too much with this facility though as it is not the easiest of exercises.

The pictures you like can be saved to disc. This takes up about 21k of space per image, so it might be wise just to choose the part of the picture you like best in a 'Window' – you can choose the dimensions of the window you want – which obviously saves disc space.

One advantage of this is that you can use various windows, either at full or half size to build up composite

Anyone interested in producing graphics on a PCW will sit up and take notice when a new digitiser comes on the scene. After hours of staring at words and figures on your faithful green screen there is nothing more fascinating than seeing a picture there. So when Rombo produced their new Vidi digitiser for the PCW it didn't take long before 8000 Plus had it plugged into the nearest video recorder.

pictures. The flexibility is further increased by a 'Scroll' facility. You can 'Clear' all the pixels in the window or 'Invert' the image (green on black instead of black on green). With all this technology at your fingertips the 'Undo' feature which replaces what changes you have just made often comes in handy.

The final option is to use text on the picture to put the finishing touches. Again there are options. The double or single height text can be placed anywhere on the screen in 'Overwrite' (clearing what is underneath) 'Merge' or 'Complement' mode (the reverse colour to its background). This is where the digitiser really starts to pay for itself. It is fine to produce pretty pictures but the ability to combine pictures and text opens up a wide field of practical applications.

Question time

What is a digitiser?

– A neat piece of equipment that turns frames from a video tape into a digitised picture.

What is a digitised picture?

– An image made up of different shades of pixels which can be shown on screen or printed out.

Instant Images

Perhaps the most uncanny aspect of a digitiser is that it produces images instantaneously. Anyone who has tried to create a masterpiece with a graphics or art package will know what a painstaking process that is. To suddenly see hundreds of different images flickering across the screen is mind boggling.

Those who have been using clip art libraries may be pleased with the quality of the illustrations but be bored

with the limited number of images available. How often do you find that the only image missing from your clip art package is the very one you need?

The very ease with which video pictures appear on the screen is deceptive. There is still a fair way to go between seeing the moving images from your video tape flashing up on the PCW, and freezing and refining one to produce a useable picture.



One interesting new application is using Rombo images with the new Fleet Street Editor Plus desktop publishing program. With the Editor, a Rombo and a video camera you could rival Eddie Shah as a leader in newspaper technology.

What is a pixel?

– The tiny little blobs on the screen that make up the images like the dots on a newspaper picture.

What is Clip Art?

– A series of general pictures to suit (hopefully) all occasions, provided with art or desk top publishing programs.

PLUSES

- ☐ Great amount of control over the finished product.
- ☐ Simple to use.
- ☐ Text editor gives it a number of practical applications.

MINUSES

- ☐ The number of options could be confusing and slow to work your way through.
- ☐ You need practice to recognise a good image.

RANGE OF FEATURES
EASE OF USE

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ENIGMA VARIATIONS

CODE GENERATOR

by Rodney Bennet

There is a basic clash of personalities amongst the major groups of PCW user. There are a large number of writers who are very keen for anyone to read their brilliant prose and there are the computer people who have a strange fascination for coding and protecting everything just in case anyone else should read it.

Here is the ultimate paranoia aid for the really secretive, from Rodney Bennet — details of how to use your PCW to write messages in unbreakable code.

Just about the most secure code known to spying is the 'one-time' pad. Without the original encoding material there is no way even the most skilled code breaker can break it — mainly due to the fact that each letter is coded with a random number unrelated to any other.

In the past cumbersome mechanical presses were needed to produce the pads but the randomising facility on the Amstrad makes it ideal for doing this with a short basic program. The 1234 in line 20 is a random figure to give the program something to work with when randomising — it can be any four digit number. The RANDOMIZE PEEK in line 40 is essential to make sure it randomises differently every time (it takes its starting point from the system clock and so gives you a different set of figures each time.) Without this you may get all the pads the same.

When you run the program there is a short pause while the PCW sorts out a set of random numbers. You then enter a name or number to identify each page and the program prints out pages of random pads. As it stands, it will produce 25 lines to fill an A4 page, but if you want to save time you can reduce the last figure in line 160 to produce a smaller pad.

You end up with a sheet containing columns of four digits with the alphabet at the bottom and a one or two digit number against each letter. When prompted put in another sheet and print out the copy.

Now decide on your secret message. It has to be something important that you don't want anyone else to know about. For instance it could be "Dear Iran, Here are more arms. Ronnie." Write the number for each letter with a zero for a space and 27 for a full stop. This message would read:

```
D E A R I R A N H E R E
4 5 1 18 0 9 18 1 14 0 8 5 18 5 0
A R E M O R E A R M S .
1 18 5 0 13 15 18 5 0 1 18 13 19 27
R O N N I E .
18 15 14 14 9 5 27
```

Put these numbers under the line of numbers from your one time pad — in this case

```
5140 2730 2514 8993 3179 2650 5690 8435 1732 6536
  4   5   1   18   0   9   18   1   14   0   8   5   18   5   0
2468 5029 9109 3222 2872 6745 5639 6072 7589 8198
  8   5   18   5   0   1   18   5   0   13
```

60 8000 PLUS

and so on. Put the letter numbers below the numbers from the pad and add the two together to produce a unique set of four digit numbers, like this:

```
5140 2730 2514 8993 3179 2650 5690 8435 1732 6536
2476 5034 9127 3227 2872 6746 5647 6077 7589 8211
```

If the person who receives this message has a copy of your One-Time Pad they just reverse the operation, subtract the pad figures from the coded figures and translate the numbers back into letters. As every 8000 Plus reader now knows your secret you might want to get really cunning and subtract the message figures from the pad figures rather than adding them. You could use a symbol (perhaps with number 28) to explain that the next group in the message represents numbers instead of letters.

One danger with this system is that it will get garbled in transmission. For instance, if one group of numbers gets lost, all subsequent groups move up one and make the rest of the message nonsense. It is therefore wise to show how many groups a message contains, at the end of it.

The code can be broken if a lot of coded material is obtained and different messages can be compared. The really paranoid can interchange a number of one time pads to make it nigh on impossible to break.

The German *Enigma* system in World War II used a typewriter-like machine with whirling adjustable rotors that converted each letter into another letter. The Achilles heel of this method was that the letter was never represented by itself. The early British code breakers in Bletchley Park (who incidentally used electronic equipment known as bombs, probably the earliest computers) managed to obtain one of these machines and armed with the knowledge of this one flaw could often get a clue to what setting was being used that day.

But they still wouldn't be able to break your coded messages using your PCW One Time Pad, would they now?

```
10 CLEAR: DIM Z(260): y=1234
20 RANDOMIZE PEEK (64504!)
30 FOR n=1 TO 260: Z(n)=RND(y): NEXT n
40 INPUT "Enter name or number of pad": A$
50 LPRINT A$: LPRINT
60 FOR I=1 TO 2: v=1
70 FOR m=1 TO 25: FOR n=v TO v+9
80 LPRINT USING "####": (Z(n)*8500)+999;
90 LPRINT " ";
100 NEXT n
110 v=v+10: LPRINT: LPRINT
120 NEXT m
130 LPRINT
140 FOR n=1 TO 26
150 LPRINT CHR$(N+64) "=";
160 LPRINT USING "####": n;
170 LPRINT " ";
180 IF INT(n/10)=n/10 THEN LPRINT
190 NEXT n
200 LPRINT "Stop=27 Numbers=28"
210 IF I=1 THEN PRINT "Insert new sheet of paper and touch any key" ELSE END
220 B$=INKEY$: IF B$="" THEN 220 ELSE 230
230 NEXT I
```

▲ Code pad generator

```
Test One
5140 2730 2514 8993 3179 2650 5690 8435 1732 6536
2468 5029 9109 3222 2872 6745 5639 6072 7589 8198
5320 1023 7969 5151 4102 6529 6719 5182 1110 4150
8566 6719 9299 4820 3441 5685 8097 2525 3305 7965
5279 5207 3513 2370 3345 7058 7895 9208 8608 5976
9002 4941 5849 5606 5029 5927 9173 7115 3934 1644
1473 1403 6807 6642 7587 6884 9444 4809 1052 5076
7484 6441 8078 2101 2833 2617 3640 5937 5511 9339
3482 3261 4532 6202 7919 7509 9370 9472 5211 8884
5670 3183 8071 8674 4327 6518 8665 5634 6457 5325
9499 5719 3386 4770 8332 4226 4858 3237 4666 6857
1027 4223 3419 4815 5188 5593 2722 3124 3375 9187
5335 9459 4805 8594 2095 7910 5174 3439 5339 5373
5513 9259 8292 5317 7766 2395 4337 3953 9364 8205
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5902 7196 2077 1387 4170 5381 1530 7839 6619 7459
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5268 8447 1367 2852 8544 8068 7190 2207 1163 9402
9205 5954 5312 6244 7915 6654 6264 3901 5047 9039
```

◀ A page of the pads generated

A* 1 B* 2 C* 3 D* 4 E* 5 F* 6 G* 7 H* 8 I* 9 J* 10
K* 11 L* 12 M* 13 N* 14 O* 15 P* 16 Q* 17 R* 18 S* 19 T* 20
U* 21 V* 22 W* 23 X* 24 Y* 25 Z* 26 27

UNIVERSAL CONVERTER

by S.J.Shawyer

Ever worried about how many square inches there are in a hectare? Ever pondered wistfully over on the number of bawbees in a groat? If so this program still won't help you – although it does most other conversions.

Can you believe you get 18 different conversions from Metric to Imperial, or vice versa, at your fingertips in one simple program. Now that is handy. You might think it worthwhile carrying your PCW with you just in case you have to work out one of those sticky little conversions.

We get a large number of conversion programs submitted for the listings pages so here is a chance to cover a lot in one go. Of course if you are really keen to add in a groat/bawbee transferyou can add this yourself by making the appropriate addition to line 90 and a modification to the 'mug trap' in line 80.

The mug trap in this program checks that the user only types a number between 1 and 18. If they pick a number more than 18 or less than 1, the program goes back and asks them again...and keeps on asking them until the twits get it right. Obviously the top limit needs to be changed if you increase the number of options.

You'll also need to add the details in the menu (around line 60), work out the correct value for U (eg U = 8: C\$="groat"; T\$="bawbees") and tag it on the end.

```

10 CLS$:CHR$(27)+"E"+CHR$(27)+"H":PRINT CLS$
20 PRINT"(1) Metres to Inches(5) Feet to Metres (9) Litres to Pints (13) Klm to Miles"
30 PRINT"(2) Metres to Feet (6) Yards to Metres (10) Pints to Litres (14) Miles to Kms"
40 PRINT"(3) Metres to Yards (7) Litres to Gallons(11) Lbs to Kilos (15) mm to Inches"
50 PRINT"(4) Inches to Metres(8) Gallons to Litres(12) Kilos to Lbs (16) Inches to mm"
60 PRINT "(17)Centigrade to Fahrenheit (18) Fahrenheit to Centigrade"
70 PRINT:INPUT "Enter No. of conversion required";C
80 IF C >18 OR C<1 THEN 20
90 ON C GOSUB 170,180,190,200,210,220,230,240,250,260,270,280,290,300,310,320,330,340
100 PRINT"Enter 'n' to select new conversion"
110 INPUT"Enter value to be converted";V$
120 V=VAL(V$):IF V$ = "N" OR V$ = "n" THEN 20
130 IF C$="Centigrade" THEN A = (V*U)+32:GOTO 160
140 IF C$="Fahrenheit" THEN A = (V-32)*U:GOTO 160
150 A=V*U
160 PRINT CL$;V;C$ " = " A;T$:GOTO 100
170 U = 39.37:C$ = " Mtrs":T$ = " Inches":RETURN
180 U = 3.2808:C$ = " Mtrs":T$ = " Feet":RETURN
190 U = 1.0936:C$ = " Mtrs":T$ = " Yards":RETURN
200 U = 0.0254:C$ = " Inches":T$ = " Mtrs":RETURN
210 U = 0.3048:C$ = " Feet":T$ = " Mtrs":RETURN
220 U = 0.9144:C$ = "Yards":T$ = " Mtrs":RETURN
230 U = 0.22:C$ = " Ltrs":T$ = " Gallons":RETURN
240 U = 4.546:C$ = "Gallons":T$ ="Ltrs":RETURN
250 U = 1.76:C$ = "Ltrs":T$ = "Pints":RETURN
260 U = 0.56825:C$ = "Pints":T$ = "Ltrs":RETURN
270 U = 0.4536:C$ = "Lbs":T$ = "Kilos":RETURN
280 U = 2.2046:C$ = "Kilos":T$ = "Lbs":RETURN
290 U = 0.6241:C$ ="Kilometres":T$ ="Miles":RETURN
300 U = 1.609:C$ = "Miles":T$ = "Kilometres":RETURN
310 U = 0.0393701:C$ = "mm":T$ = "Inches":RETURN
320 U = 25.4:C$ = " Inches":T$ = " mm":RETURN
330 U = 1.8:C$ = "Centigrade":T$ = "Fahrenheit":RETURN
340 U = 5/9:C$ = "Fahrenheit":T$ = "Centigrade":RETURN

```

▲ Universal converter listing

```

(1) Metres to Inches(5) Feet to Metres (9) Litres to Pints (13) Klm to Miles
(2) Metres to Feet (6) Yards to Metres (10) Pints to Litres (14) Miles to Kms
(3) Metres to Yards (7) Litres to Gallons(11) Lbs to Kilos (15) mm to Inches
(4) Inches to Metres(8) Gallons to Litres(12) Kilos to Lbs (16) Inches to mm
(17)Centigrade to Fahrenheit (18) Fahrenheit to Centigrade

Enter No. of conversion required? 17
Enter 'n' to select new conversion
Enter value to be converted? 100
100 Centigrade = 212 Fahrenheit
Enter 'n' to select new conversion
Enter value to be converted? 1

```

▲ A sample run of the converter

How to type a listing in

The first thing to do is to load Mallard BASIC. Turn on your PCW and put a copy of the CP/M master disc into drive A.

When the A> prompt appears, type BASIC and press [RETURN]. After a few seconds a message about Mallard BASIC will appear on the screen, ending with the prompt 'Ok'.

Type in each line of the listing very carefully, starting with the line number and finishing with [RETURN]. Be careful not to mix up capital I, lower case l and the digit 1. Also take care over capital O and the digit 0, colons and semicolons. During a long listing, it is important to save your work every 15 minutes or so, and you should always save any listing before running it. To do this, find a work disc with space on it, put it in the disc drive and type SAVE "PROGRAM" [RETURN]. Of course you can choose any name, up to eight characters long, instead of 'PROGRAM'.

When you've finished, type LIST [RETURN] and the whole

program will appear on the screen. Check it, and if any lines are wrong correct them with the 'line editor'. For example, if there is a mistake in line 100, type EDIT 100 [RETURN]. Use the arrow keys and the delete key to correct the line, and press [RETURN] when you've finished. You can delete a whole line by typing its number and pressing [RETURN].

To run the program, simply type RUN [RETURN]... and wait for it to go wrong.

It's more than likely that no matter how carefully you typed in the listing it won't work first time. You may get an error message such as 'Syntax error in 100'. List the program out (LIST lists it on the printer instead of the screen) and check it against the original in the magazine.

The line number given in any error message isn't necessarily where the error is – it is simply the point at which the PCW gets stuck. You may have to look elsewhere for the error.

When you find the mistake,

either retype the complete line or use the line editor as described earlier to correct it. Rerun the program, and go on correcting it until it works. Once the program is running correctly, save it again. To leave BASIC and return to

CP/M, type SYSTEM [RETURN].

If you want to run the program another day, start BASIC up and type LOAD "PROGRAM" (or whatever name you used in place of 'PROGRAM'). Then just type RUN to run it.

Can YOU Program?

If so, you could earn hard cash (£10-£100) and instant fame by having your programs printed in this magazine. We're interested in SHORT programs of GENERAL INTEREST: utilities, graphic games and the like.

Programs of 1 to 20 lines are particularly likely to be printed (because we can manage several in an issue) – those that are longer have to be really good, so don't get carried away with lots of lines devoted to 'window dressing' the program. Instructions can be given in accompanying documentation much more efficiently.

To submit a listing you must

supply the following:

1. A printout of the listing.
2. A disc on which it is saved.
3. A stamped, addressed padded bag for return of your disc.
4. An explanation of what the program does and how to use it.
5. A signed statement confirming that the program is your original work and hasn't been submitted to anyone else.

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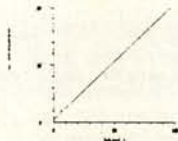
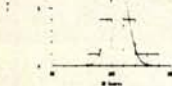
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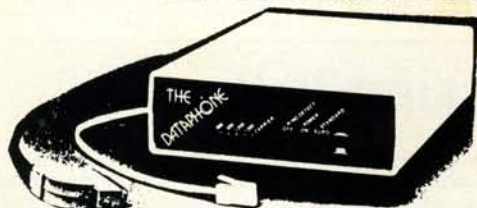
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LOCOSCRIPT INDEX

by Roger Wenham

The paperless office is all very well but there is something reassuring in being able to print out a directory of all the LocoScript files on a disc. If you are one of those organised types that uses the 'Identity' function (the short piece of text which is displayed in response to the 'Inspect' command) it would be really useful to be able to print them out.

Trying yet again to live up to our reputation for being really useful, here's and offering from Roger Wenham. With the authority of personal experience he writes 'Never again need you scratch your head trying to decipher that cryptic filename that once meant so much and now looks like an explosion in a Scrabble factory.

The program looks through your disc and prints out every file in its group along with the 'Identify' text. If your disc contains other types of file, it lists them with the curt message 'This is not a LocoScript file'. It even lets you choose between A: and B: drives (if you have a B: drive).

If you don't currently use the 'Identify' text here's a reminder of how it works. When you complete a document in LocoScript, press [f7] 'Modes' instead of [EXIT] and select the 'Edit Identify text' option. Then you have three lines of 30 characters to use in any way you want to identify your file. To display the text later, just put the cursor over the file and press [f2] 'Inspect'.

INDEX FOR DISK: Disk Side 'B'

Group = LETTERS

AGNESS .LET - A letter to Aunt Agness
thanking her for Xmas present
10/1/87
INDEX4 .BAS - Not a LocoScript file
USERSPEL.DCT - Locospell dictionary
AGNESS .LO2 - Letter to aunt agness thanking
her for Birthday present.
20/3/87
BANK_002.LET - Letter to the bank to ask for
a loan.
12/9/87
BANK_001.LET - Letter to the bank manager to
explain overdraft.
10/8/86
BANK_003.LET - Letter to the bank explaining
why I can't keep up repayments
22/11/87
INDEX .BAS - Not a LocoScript file

Group = TAX_MAN

TAX_ .LET - Letter in reply to the tax
inspectors demand for money
22/9/87
TAX_ACC .DOC - Statement of accounts for the
tax office
1/4/86
TAX_ACC1.DOC - Statement of accounts for the
tax office
1/4/87

Group = STORIES

STORY_G3.B - Story about girl (Goldilocks)
and three bears,
written 6/5/86
USERSPEL.DCT - Locospell dictionary
STORY_WH.0 - Science fiction story about a
doctor who travels in a police
box. written 12/2/87

▲ LocoScript file indexer

```

10 attron$ = CHR$(27)+"E"+CHR$(14) : attroff$ = CHR$(27)+"F"+CHR$(20)
20 INPUT "Enter drive to be indexed: (a/b)" ; dr$ : dr$ = dr$ + ":"
30 INPUT "Enter the disk name: " ; dname$
40 LPRINT attron$ ; "INDEX FOR DISK: " ; dname$ ; attroff$
50 FOR group = 0 TO 7
60 OPTION FILES STR$(group)
70 IF FIND$(dr$+"*.*") = "" THEN GOTO 250
80 groupnam$ = LEFT$(FIND$(dr$+"*.*"),8)
90 IF groupnam$ = "" THEN groupnam$ = "Group " + STR$(group)
100 LPRINT:LPRINT attron$ ; "Group = " ; groupnam$ ; attroff$
110 FOR filecount = 1 TO 100
120 file$ = FIND$(dr$ + "*.*",filecount)
130 IF file$ = "" THEN GOTO 250
140 IF RIGHT$(file$,3)="GRP" THEN CLOSE 1 : GOTO 240
150 IF RIGHT$(file$,3)="DCT" THEN LPRINT file$;" -Locospell dictionary":GOTO 240
160 OPEN "I",1,file$
170 IF LOF(1) < 3 THEN LPRINT file$;" - Not a LocoScript file" : GOTO 230
180 a$ = INPUT$(3,#1)
190 IF a$ <> "JOY" THEN LPRINT file$;" - Not a LocoScript file" : GOTO 230
200 a$ = INPUT$(2,#1)
210 LPRINT file$;" - ";INPUT$(30,#1)
220 LPRINT SPC(15);INPUT$(30,#1):LPRINT SPC(15);INPUT$(30,#1)
230 CLOSE 1
240 NEXT filecount
250 NEXT group
260 OPTION FILES "0" : END

```

▲ Sample print out of LocoScript file index

M.P.G. Calculator

by Brian E Blandford

Believe it or not we have actually had requests for a M.P.G. Calculator and far be it from us to refuse. So here is Brian Blandford's faithful PCW program (Yes – it's the Petrol Consumption Watchdog) which should cover every eventuality.

The real advantage of the program is that it works in both gallons and litres. It even covers the times when you buy petrol and don't take a note of the quantity – as long as you remember how much you spent. As well as printing out in true British miles per gallon it even gives you km per litre – it must mean something to someone. So if you really want to know how much you are getting from your Metro, type on.

It doesn't really matter how you type in the date when you're prompted for it. It's only used as a memory jogger and only really comes into its own if you print out all your records. This is achieved by changing LPRINT for PRINT throughout.

To use the program just keep answering the questions until there ain't no more, then press [RETURN]. Now prepare to be depressed.

GREMLIN'S CORNER

Well done all of you who noted the deliberate mistake in last month's listings. There is a mistake in 'Moving Writing' – the last two characters of line 60 got inexplicably truncated. The line should end MID\$(a\$,i).

There is also a mistake in the 'BASIC SETKEYS' listing, and it isn't helped by having been printed too small to read. Pressure of space means we can't reprint it wholesale this month, but anybody pining for an amended version can get a correct photocopy from us by sending an SAE to the Listings Editor at our Bath address. Our apologies to the author, Terry Dwyer.

```

10 escape$ = CHR$(27): cls$ = escape$ + "E" + escape$ + "H"
20 PG=0:PL=0:PU=0
30 PRINT cls$: TAB(35) "Petrol Purchases":PRINT
40 INPUT "Dates of sampling period";d$
50 INPUT "First amount of petrol recorded in gallons";P1
60 IF P1=0 GOTO 90 ELSE GOTO 80
70 INPUT "Next petrol in gallons";P1:IF P1 = 0 GOTO 90
80 PG=PG+P1:GOTO 70
90 INPUT "First amount of petrol recorded in litres";P2
100 IF P2=0 GOTO 130 ELSE GOTO 120
110 INPUT "Next petrol in litres";P2:IF P2 = 0 GOTO 130
120 PL=PL+P2:GOTO 110
130 PRINT"Are there purchases with the gallons/litres unrecorded"
140 PRINT "but the cost per unit and amount spent known? (Y/N)": GOSUB 320
150 IF A>2 THEN GOTO 220 ELSE INPUT "What was the cost per unit? (#) ",C
160 M$="GgLl":PRINT "Gallons or litres? (G/L) ":GOSUB 330
170 INPUT "How much did you pay? (#) ",U
180 IF A<3 THEN GU=U/C
190 IF A>2 THEN GU=U/4.456/C
200 PU=PU+GU
210 PRINT "Any further unrecorded units? (Y/N) ": GOSUB 320: GOTO 150
220 INPUT "Beginning mileage";M1
230 INPUT "End mileage";M2:PRINT cls$
240 P3=PG+(PL/4.546)+PU:M3=M2-M1:R=M3/P3
250 PRINT TAB (24) "Petrol consumption for period "d$
260 PRINT TAB (15)"Miles travelled: "M3 TAB (45)"Petrol consumed: "P3" gals."
270 PRINT TAB (30) "*** M.P.G. = "ROUND(R,1)"***"
280 PRINT TAB (25)" (= ";ROUND(P3*454.6/(M3*1.6093),1);
290 PRINT " L/100Km, or" ROUND(M3*1.6093/(P3*4.546))" k.p.l)"
300 PRINT:PRINT:PRINT:PRINT "Do you want to make another calculation? (Y/N)"
310 GOSUB 320: IF A<3 GOTO 20 ELSE GOTO 350
320 M$="YyNn"
330 A$=INKEY$: WHILE A$="": A$=INKEY$: WEND: A=INSTR(M$,A$): IF A=0 THEN 330
340 RETURN
350 END

```

▲ MPG calculator

LocoScript user. . .



Instead of this . . .



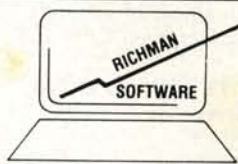
. . . you can have this



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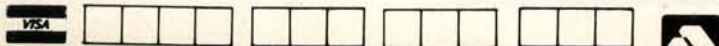
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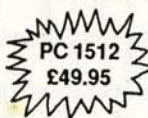
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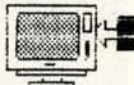
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Outliners seem to be the in thing at the moment, from programmes that hide CP/M from the user with the aid of a mouse to simple notepads or calculators that 'pop up' when called. TOUR, by Ed Taychert of Palmyra, USA, was written six years ago to help correlate thoughts and ideas into a logical and neatly presented document, rather than creating reams of paper which usually end up in the bin. If your life is as chaotic as mine, TOUR will go a long way to making your life that little bit more organised!

Some of the uses of TOUR, as suggested by the author, are preparing agendas for meetings, presentations, software design, project breakdowns or as a desk calendar. These can all be thought of as having headings, subheadings and sub subheadings, and are thus ideal for this program.

Have you noticed how ideas never seem to come along in a logical order? TOUR allows these thoughts to be written to a file, in the order that they come, letting you re-organise them later when you have most of the headings and subheadings set down.

You can then move the subheadings underneath their appropriate headings and TOUR keeps track of what goes where. To keep the screen clear and free from unnecessary text, the program only displays the heading currently under scrutiny. This process helps you separate out all the points you are trying to get down on paper and makes for a neat finished product, with the text separated out logically into 'chapters', 'paragraphs' and 'sub paragraphs'. This process of 'divide and conquer' is a well known method of making an enormous task easier to handle as each task is divided again and again into smaller ones, until the whole job becomes much more manageable and easier to deal with.

After sorting out all the headings and subheadings you will have, in effect, a tree like structure of linked headings. This is rather like using a card index, where you put down the main ideas on the top of each card, sort them out on the kitchen table into some semblance of order and then add more headings and notes on more cards in between the main cards, until you end up with a box of cards in your intended order. You then go through all the cards, numbering them into decimalised numbered headings (like 1.2.1.4). What a drag! TOUR does the card writing and sorting and ROFFTOUR will complete the process by adding the index numbers and output format.

Text explanations and summaries can also be added, but as TOUR is not a full text editor they can not be easily altered. It is best to add them from a previously typed file prepared with your favourite word processor and spell-checker package. Correcting errors and editing text is easily accomplished with most word processors, as TOUR generates a simple ASCII text file.

Going dotty

TOUR uses a system of 'dot-commands' (two characters preceded by a full stop) which will already be familiar to users of WordStar and its clones. They are special formatting commands inserted into the ASCII text file to enable TOUR to figure out how you want the file laid out when it's finished. Some of the dot commands are the same as in WordStar and you only really need to learn how to use them when you start doing fancy things with the text layout. Because TOUR uses dot commands and WordStar doesn't use carriage return/line feeds very often, it is best to use WordStar's non-document mode to avoid putting WordStar dot commands into the TOUR file accidentally.

This problem doesn't occur with LocoScript or Protext, though you have to remember to convert to and from ASCII files when moving between them and TOUR.

IN OUTLINE

Frank Peters leaves instructions for a mate to feed the cat

Laying it out

Having typed all those wonderful ideas of your's into the TOUR file and sorted it all out, you're ready to print it out, print it to disc or view it on screen.

This is done with a second programme called ROFFTOUR (stands for RunOFF TOUR). This program not only lets you choose the destination of the finished

Contents

0 :: append
Enter headings. (push return at beginning of line to stop)

1 :: Daily
2 :: Weekly
3 :: In case of emergency
4 :: Mow the lawn
5 :: water the lawn
6 :: Check for mail
7 :: Feed cats
8 :: Cats' names
9 :: Cats' food
10 :: water plants
11 :: spray plants
12 ::

▲ Main and sub headings entered in TOUR

Contents

1. Daily
2. Weekly
3. In case of emergency
... plus text

▲ The TOUR file compressed to show only main headings

h1 Daily
s1 +1
h1 Cats
s1 +1
h1 Cats' names
s1 +1
h1 Tinker
s1 +1
h1 Likes
h1 Dislikes
s1 +1
s1 -1

▲ Dot commands in the TOUR file

Mum, thanks for taking care of the house for the three weeks whilst I am away. It really is appreciated. I have jotted down a few things to keep an eye on, and to help you to keep the house 'tickling over' smoothly whilst I am away.

You know, where all the bits are for the garden work you will be doing for me - well you'd say you enjoy a spot of gardenings! I reckon my back lawn should keep you busy!

Anyway, here's that list...

1. Daily
2. Cats
3. Cats' names
4. Tinker
5. Likes
6. Dislikes
7. Sledge
8. Likes
9. Likes

▲ Text of the finished begging letter

file but also lets you format it. You can specify margins widths, paragraph indent, line spacing, centring of text, underlining, page lengths, headers and footers, page numbering and justification.

If you've ever seen those car self-maintenance manuals all laid out with those neatly numbered sections, you will appreciate how easy it is to find a section you need and how pleasing to the eye the finished product is. It doesn't help you fix your car, of course. Have you noticed how you always seem to have a completely different part fitted than that shown in the book?

EXIT

Where to go

If you want to get hold of Public Domain software, there are three sources which may interest you.

The CP/M user group publishes a quarterly newsletter and runs a vast software library, though not all of it relevant to PCW users. The software is free, but there is a membership fee and a copying fee per disc. Send a large SAE to: The Secretary, CP/M User Group, 72 Mill Road, Hawley, Dartford, Kent DA2 7RZ.

PD Software can also supply a large range of public domain programs, again with administration charges. Write to: PD Software, Winscombe House, Beacon Road, Crowborough, East Sussex TN6 1UL.

If you have a modem, you can download software from my bulletin board (among others). This is active between 10pm and 8am each day, on 0462 700893.

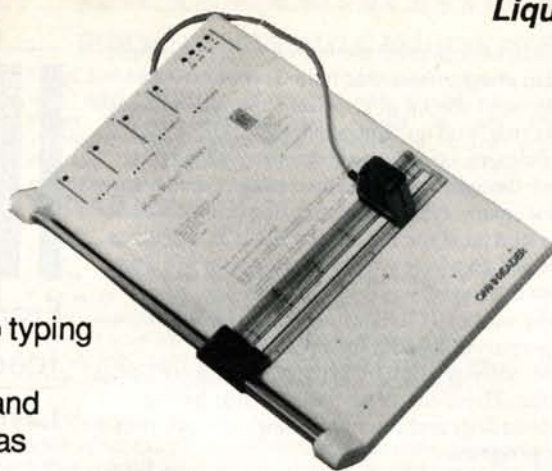
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Any computer with a standard RS232 port can make use of the Oberon **Omni-Reader**, all you need is some communications software and the cable for your computer.



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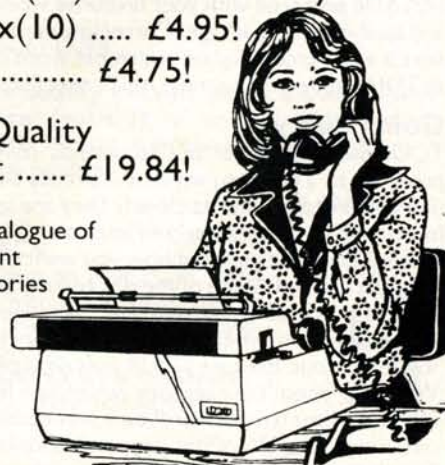
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**SAME DAY
DESPATCH**

TIP-OFFS

Read all a bout it! Welcome to three more pages which blow the lid off the PCW and its multifarious manifestations

This month's batch of tips covers everything from perking up your printer to personalising Protex. £30 chunks of the 8000 Plus fortunes go to Londoner Denzil Millichap for his Protex revelations, and Matthew Tod of Coventry for his advice on using the M drive to best effect.

Your magazine needs you! We need lots of tips to tide us over the sultry summer months in Bath. Whether for LocoScript, another program you use, or just CP/M in general, if you have discovered a gem hidden in an obscure part of the manual we want to know. Alternatively, if you've got a problem, maybe one of our readers knows the answer – you only have to ask.

Send your tips and pleas to *TipOffs, 8000 Plus, 4 Queen Street, Bath BA1 1EJ* – and you could be carrying off a £30 prize next month.

RPED's hidden depths

Users of the BASIC editor, RPED, trying to switch between insert and overwrite mode will discover that the normal '+' key doesn't work. The correct key is the \square key to the left of the space bar.

Two unpublicised RPED features are [ALT]+[DEL], which deletes from the cursor position to the end of the line, and [ALT]+[\square DEL], which deletes from the beginning of the line to the character before the cursor.

D. McCallum

Great Sutton, S. Wirral

Print while you work

When printing a document from LocoScript, you can only edit or create another document if it is on the same disc as the one being printed. This can be inconvenient when printing a long document from, say, your Letters disc when you have a 1000 word report waiting to be typed or edited on your Manuscript disc.

However, by copying the document to be printed onto the M drive (using the [f3] key) you can then change the discs as you like while the document happily prints out from the M drive and you get on with the dreaded report!

Lorraine Forrest Slough

Customised print from Protex

Arnor's Protex word processor allows documents to control how they are printed out by 'stored commands' in the document itself. Any line beginning with a > sign is assumed to be a Protex command rather than part of the document.

A standard 'template' file would therefore contain the stored commands for the line spacing, pitch and so on that you want to use. This has the disadvantage that if you want to do a double spaced draft of a document which is to end up single spaced, you will have to edit the document to alter the stored print commands before printing it, and then undo the changes afterwards.

However, because Protex's stored commands are virtually a programming language in their own right, you can write a document file which will allow you greater flexibility. The printout shown is a standard Protex file containing stored commands. The idea is to use the >IN command to merge this file into your document as it prints.

This special file (which is about 1k large) is best stored on your Protex startup disc and copied onto the M drive. If you call it SET.PTR then the existing startup

procedure as supplied by Arnor will automatically copy it for you (it copies all files ending in .PTR).

Make sure that the first line of each document contains the line:

>IN M:SET.PTR

When you print a file with this line in it, you will be asked whether you want to use default values.

These are set up in line three of SET.PTR, so you could alter them to suit you better. Otherwise you are asked a string of questions to set each option individually – if you press [RETURN] rather than replying properly, then Protex's default value is used. Unless you have reconfigured your Protex (with the CONFIG program), these will be 66 single spaced lines per page, with printing starting at page 1.

You could define a function key to do the printing for you from within an editing session. If you add the command

KEY V "↑254↑pq↑13↑"

to your STARTUP file, then whenever you press [EXTRA]+V or [f3/f4], the current document you are working on will print with the new process.

Denzil Millichap
London SW18

```
>AV "Default values for printout? (Y/N) " def
>IF def="Y"
>SV nc=1 ls=1 sa=1 ea=1000 pl=66 cp="ON"
>EI
>IU cp
>AV "Continuous stationery? (Y/N) " cp
>IF "Y" IN cp
>SV cp="ON"
>EI
>SV cp="OFF"
>EI
>CP &cp&
>IU nc
>AV "Number of copies? (1) " nc
>EI
>NC &nc&
>IU ls
>AV "Line spacing? (1) " ls
>EI
>LS &ls&
>IU pl
>AV "Page length? (66) " pl
>EI
>PL &pl&
>IU sa
>AV "Start at page? (1) " sa
>EI
>SA &sa&
>IU ea
>AV "End at page? " ea
>EI
>EA &ea&
```

▲ The contents of SET.PTR

```
PROTEX v2.04 (c) Arnor 1986 1986 HELP for London! Info Printers PCW
>AV
Default values for printout? (Y/N) n
Continuous stationery? (Y/N) n
Number of copies? (1) 2
Line spacing? (1) 2
Page length? (66)
Start at page? (1)
End at page? 999
```

▲ An example of printing a file this way

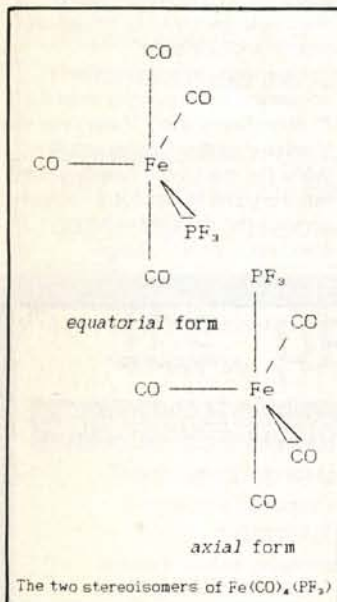
TIPOFFS

LocoScript Graphics

Did you know that you can use LocoScript to draw simple line diagrams such as the ones shown?

The secret is to realise that the strokes /, | and \ can be in any of eight different pitches (10, 12, 15, 17, 10D, 12D, 15D and 17D, where D means double width), half height and full height. Each different pitch produces strokes at a different angle to the horizontal. For example, the left hand side of the wedge was done in 10 pitch, and the right hand side in 12D pitch.

Similarly, spaces of eight different character widths are available. If you want to place a character an exact number of inches in from the margin then you can either do an elaborate series of calculations on the character widths, or use trial and error and a lot of printouts.



Varying the line spacing (including using zero spacing to overprint) and using subscripts and superscripts opens up a wide range of possibilities. To get a continuous vertical line, you will need to use the | character, which is [EXTRA]+fullstop, and reduce the line spacing to 1/2. For horizontal lines, you can use the underscore character, but you might find hyphens better since they are printed in the middle of a line. You will need to resort to overprinting with more hyphens to make it a continuous line.

It hardly needs to be said that what you see on the screen is not what you get on the paper, and the LocoScript codes need to be hidden otherwise everything becomes a confusing mess. You can store regularly used shapes as phrases.

E Keith Lloyd
Southampton

70 8000 PLUS



◀ Trux's entry in our cartoon competition

Getting the most from your M drive

Are you a Fat 8256 owner? Not, of course, anything to do with your girth, but meaning have you installed extra memory chips in your M drive to up it to the 8512 capacity?

The advantage of the extra memory is that you can hold all the files from two sides of a standard A-drive disc on the M disc at once. In the 8256's unexpanded form, you can't even fit all the files from one side into it.

Most people probably have program discs that start up automatically with a PROFILE.SUB – if not, see the April issue's TipOffs for how to do it. Write yourself a new version, as shown below: which one you use depends on whether all the files you need are on the side A of your startup disc or not.

The version for when the files are not all on side A of your startup disc will PIP all the files on the first side of the disc onto the memory drive, then present you with an asterisk which means you should turn the disc over (or put in another disc) and press [RETURN]. The PCW then runs off the memory to load up the remaining

files from the other disc, and runs the program.

Variations on this theme are possible if you don't want to transfer all the files on a disc, just insert the specific file names in place of the * of the PIP commands.

"So what?" you say. This means you can now take out the program disc altogether and use the A drive solely for your data discs. You need never swap discs, and it saves wear and tear on the drive. Most importantly, it dramatically speeds up programs that write to and from discs while they work. DR GRAPH is totally rejuvenated on the M drive.

The first line of the PROFILE.SUB is quite cunning. This tells CP/M to look on the M drive for all files before looking on the default drive. Thus, if you have PIP.COM on the M drive, as is quite likely, and you are logged on to the A drive (ie your CP/M prompt is A>), you can run PIP just by typing PIP [RETURN], as opposed to M:PIP [RETURN] as you would normally do.

Matthew Tod
Stoke, Coventry

```
SETDEF M:,* [ORDER=(COM,SUB) TEMPORARY=M:]
PIP
<M:=*.*[0]
<
M:
name of program to run, eg SC2
```

▲ The PROFILE.SUB when all files are on the same side of the disc

```
SETDEF M:,* [ORDER=(COM,SUB) TEMPORARY=M:]
PIP
<M:=*.*[0]
M:
PIP M:=A:.*.*[0]
name of program to run, eg SC2
```

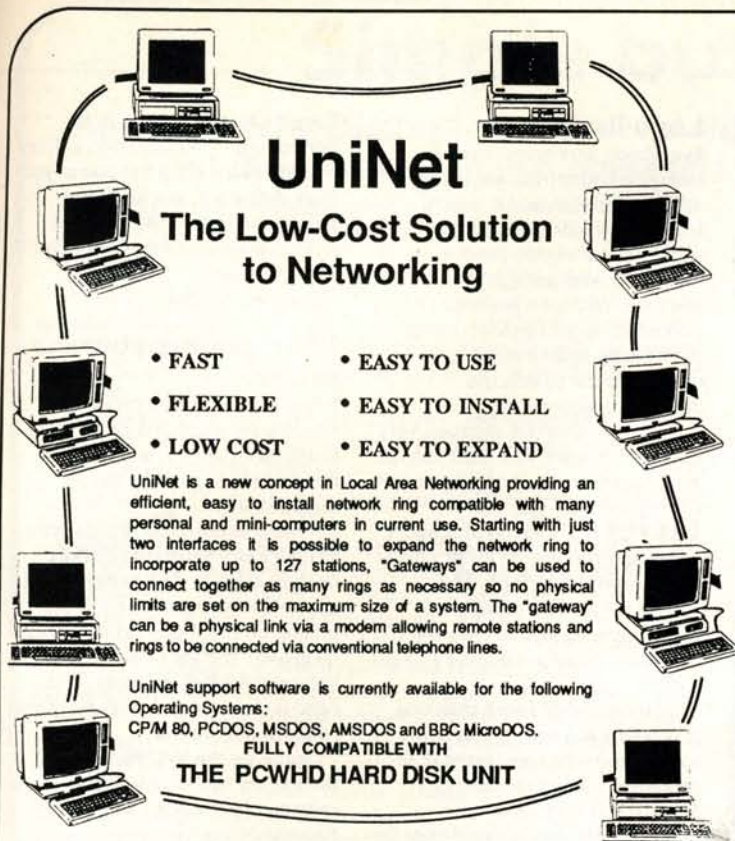
▲ The PROFILE.SUB when the files are spread over both sides of the disc

Undoing SETKEYS

If you use a program which customises the PCW keyboard with SETKEYS, this can be troublesome for other programs. For instance, after using WordStar, the cursor keys have been altered and will no longer work when trying to edit the lines of a BASIC program in RPED.

What you need to do is to restore the original key definitions (which are listed out in the back of the Amstrad manual, on page 112). You need to type the following lines into a file: call it KEYS.CPM for reference. To get the ↑ symbol, type [EXTRA]+semicolon, and to get \ type [EXTRA]+1/2. With this all typed in, the command SETKEYS KEYS.CPM [RETURN] will restore your keyboard to its virgin state – of course you will need to have the file SETKEYS.COM on the work disc with your KEYS.CPM file.

```
66 N "↑ C"
02 N S "↑ Z"
00 N S "↑ Q"
73 N S "↑ S"
77 N S "↑ P"
16 N "↑ G"
75 N "↑ H"
10 N "↑ U"
03 N "↑ W"
20 N "↑ J"
E #8 F "↑ F ↑ B ↑ B"
13 N "↑ #8 F'"
E #9 0 "↑ F ↑ B'"
13 S "↑ #9 0'"
14 N "↑ -"
23 N "↑ V"
15 N "↑ A"
06 N "↑ F"
05 N "↑ F"
01 N "↑ R"
79 N "↑ '3 0'"
16 A "↑ K"
76 N "↑ \ "
79 A "↑ E"
72 A "↑ X"
```

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Letter lists

Many people name letters by the date that they were written, as a quick reference guide. For instance, you might call a letter written on 17th May 1987 to A.N. Elk '170587.ANE'.

LocoScript kindly presents you with a sorted directory of your files. Unfortunately, 011287 (the 1st of December) will be listed before 020187 (the 2nd of January) for obvious reasons. The obvious solution is to write dates YYYYMMDD rather than DDDMMYY.

This way of writing dates is now the international standard, being part of the ISO system of

international codes, precisely because it is directly computer sortable. Readers in South Africa (all 8000 Plus readers there are, of course, politically enlightened - Ed) will be familiar with dates like these as it has been the official standard there since 1974.

LocoScript sorts files by their first letter, in the order
" # \$ % ' 0...9 A...Z _ { }

So, if you want to force some files to be listed on the directory before others, rename them to have a " in front of them.

G.E.B. Russell, Abingdon
Ray Harris, Ilford

Logo listings

Everybody agrees that typing listings without mistakes is a very difficult business, and it is very frustrating to be typing in the eighth line of a Logo procedure when you notice a typing error in line two. You can't get back to correct it, so you either have to start typing again from scratch or use the editor to edit the procedure afterwards.

You can avoid this situation very easily. Whenever you want to type in a procedure, go straight into the editing screen. Type `ed` [RETURN] with no procedure name, and you will be given a blank edit screen to work on. The normal cursor key movements work, allowing you to type and correct as often as necessary to get it right.

You can define more than one procedure at a time in the edit screen, and when you press [EXIT] you will see Logo confirm each definition as it reads it.

Be sure the name you choose for a procedure doesn't clash with a

Logo built-in primitive. In the normal typing mode, Logo will tell you of a name clash as soon as you start defining it, but using the editor you won't find out until after you've typed the whole lot in.
J.A. Coleman
Penkridge, Stafford

Shampooing your printer

Some printers seem prone to developing problems printing the bottoms of letters, and the descenders of g,i,p,q,y start disappearing.

One solution is to apply a little WD40 lubricant to the printer head to clean it. The printer head can be easily removed by gently prising off the metal retaining plate lying over the flat ribbon cable behind the head assembly. The head is then slipped away from the roller and lifted out.

Spray on the WD40, wipe off the excess with a tissue and reassemble the print head.

Ricardo Maragna
Cardiff

Printer: Online Top of form High quality Single sheet			
F2=Options F3=Actions F5=Document/Reprint F7=Reset F8=On/Off Line EXIT			
Drive A:	DATA 01	Drive B:	not fitted
80k used 111k free 34 files	0k used 0k free 0 files	Drive C:	SD LOGO 01
0k used 0k free 0 files	0k used 102k free 0 files		
ED.LTD 0k 05	LOCUSYST 0k CAR 0k		
2002183 0k 06	LOCUS 0k BOOKLIST 0k		
02 0k 07	REF 0k P.MOTES 0k		
04 0k 08	TEMPLATE 0k 08 0k		
A:ADDRESS 30 files			
3 limbo files			
INDEX 1k	CAMBS 2k		
WIMON.E 3k	ESSEX 2k		
WIMON.N 2k	HANTS 1k		
WIMON.S 4k	HANTS 4k		
WIMON.W 2k	KENT 2k		
BOOKS 01 1k	SURREY 1k		
ESSX 01 2k	SUSSEX 1k		
HANTS 01 1k	2002183 1k		
WIMON 01 4k	STUDIOS 1k		
SURREY 01 2k	STUDIOS 1k		
STUDIOS 1k	STUDIOS 1k		
STUDIOS 1k	STUDIOS 1k		
STUDIOS 1k	STUDIOS 1k		
STUDIOS 1k	STUDIOS 1k		
STUDIOS 1k	STUDIOS 1k		
BOOKS 6k			
BOOKS 1k			

Money Manager and disc drives

Those who use the Money Manager package and either own an 8512 or an expanded 8256 may be disappointed to find that Drive B: is not supported by the software. This may be overcome by simple editing of the programs MONEY.BAS and MONEYX.BAS.

Be warned that this modification is made at your own risk, and you can't expect Connect Systems to help you out if things go awry. Make sure you only modify a copy of the program, on a new disc, and that you keep an original version of the program around to go back to if necessary.

First you have to unprotect the two program files. Recapping on T.F. Potten's trick (TipOffs issue 7), you load up BASIC and type
SAVE "M:TEMP",A
This has saved a blank file to the M disc. Now put the new copy of your Money Manager disc in the drive and type

```
LOAD "MONEY"
MERGE "M:TEMP"
SAVE "MONEY"
LOAD "MONEYX"
MERGE "M:TEMP"
```

Both MONEY.BAS and MONEYX.BAS may now be edited like any other BASIC program, and you can alter it to access drive B instead of A. Since MONEYX is

still in memory, start with that. List out the first few lines with the command

```
LIST -100
```

and you will see that line 40 reads `OPTION FILES "A"`. This is the BASIC command that restricts the files to the A drive. To access B instead, change this to B retyping the whole line including its line number:

```
40 OPTION FILES "B"
```

and then save the edited version and load MONEY.BAS into memory by

```
SAVE "MONEYX"
LOAD "MONEY"
```

You will find on line 130 (list out a few lines to check, with the command `LIST 100-150`) the same command, `OPTION FILES "A"`. Change this to `OPTION FILES "B"` as well by retyping it with its line number, and save it back to disc with

```
SAVE "MONEY"
```

You now have Money Manager configured to read and write its data files from drive B instead of A - this means you will need a separate B-format data disc to use now. The program is still started and run in exactly the same way.

Donald Stuart-Smith
Rushden, Northants

Tidy BASIC Listings

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10 REM *****
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10000 REM *****
```

▲ A wide listing before running ELITE90.BAS ...

▲ ... and after running it.

When writing a BASIC program, some people take a lot of trouble with the layout by indenting FOR/NEXT loops, WHILE/WEND loops, and generally making the listing look neat and tidy.

However, when listing it to the printer all the good work is lost. This is because the PCW screen is 90 columns wide, but the printer is only 80 columns wide in its standard 10 pitch (pica) text. Any text in the last 10 columns will be printed on the next line down and mess up the layout.

An easy way to get round this is to change the printer defaults with a simple Basic program, for argument's sake called ELITE90.BAS, as shown. The first

line sets up 12 pitch (elite) text. The second and third set the left and right margins to 0 and 90 respectively, and the final line makes these settings the defaults, so that doing a printer reset will not lose them.

You could run this program automatically by including the line `BASIC ELITE90` in your PROFILE.SUB file, as long as you have BASIC.COM and ELITE90.BAS on your startup disc.

The printer control codes used in this program are described in Appendix II of the Amstrad CP/M manual.

Dennis Shannon
Bognor Regis

```
10 LPRINT CHR$(27);"M";
20 LPRINT CHR$(27);"L";CHR$(0);
30 LPRINT CHR$(27);"Q";CHR$(90);
40 LPRINT CHR$(27);"d"
50 PRINT "Printer default set to 90 column 12 pitch"
```

▲ The listing for ELITE90.BAS

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E. Dickinson (Chartered Accountant), Lancs.

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MIX C COMPILER - Full Kernighan-Ritchie implementation. Includes a fast linker, 175 library functions, optimisation tools, and a 450 page manual with full tutorial.

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LANGUAGES

MIX TEXT EDITOR - £28.95 (Advantage Members £26.95)
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THE

FILE

GOOD SOFTWARE

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Databases, Graphics packages and Communications software to face the ultimate test. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

Any software not listed here has either not been reviewed by us yet, or has been left out to make space for better programs. As well as a brief summary of what they do, the main Plus and Minus points for each program are listed. Those we think are particularly noteworthy have an elliptical flash on them. Have fun window shopping!

DATABASES

There are broadly two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want – all it does is store your address book or stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Yorkshire. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of *records* – this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of *fields* – a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an *index*. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (e.g. someone's surname) is said to be a *key field*, and can be looked up very fast compared to "non-key" fields. A good database will allow *multiple keys*, meaning that it can look up data just as fast for a variety of types of information.

First Base

£29.95 • Minerva • 0392 37756

SIMPLE & GOOD VALUE

Billed as a simple database for the first time user, First Base is quite a competent cheap card index. The manual is computer printed, and weak on diagrams which doesn't help things. One weakness is getting printed results out of First Base – either you settle for crude lists, or you have to create a template in LocoScript which is awkward to do. But overall, for simple applications and beginners, it's pretty good value for money.

PLUSES • MINUSES

- ☐ Can alter the index field at any time
- ☐ Simple to use screen editing make data entry easy
- ☐ Good value as a simple card index lookup system
- ☐ Can easily browse through the database picking out a set by hand
- ☐ Manual is badly laid out and generally difficult
- ☐ Producing printed output is awkward

Database Manager (At Last)

£29.95 • Rational Solutions/Adv. Soft. Proms. • 0279 412441

POWERFUL & GREAT VALUE

Recently re-released with a new manual and a new price, At Last is a full-featured database that is excellent value for money. It does what Cardbox can, with much better reporting facilities, and can sort too. You can do simple totalling of columns, but not general arithmetic on fields in a record. Its claims to be a true 'relational' database like dBase II are a little grandiose, but a good general purpose database – recommended.

PLUSES • MINUSES

- ☐ The basic form layouts are generated automatically
- ☐ The data can be indexed on more than one item
- ☐ Good screen editing facilities
- ☐ Printed reports can include totals
- ☐ Generally clear 70-page manual
- ☐ Subsets of records can be selected using sophisticated rules
- ☐ Manual sometimes lapses into computerese
- ☐ Page dimensions have to be specified every time you want to list things, even to the screen
- ☐ Can't do general arithmetic within fields

Cambase

£49.95 • Camsoft • 0766 831878

Cambase is very strong on data security – you can define passwords to protect sensitive databases. It is driven by quite an intricate set of menus, and you'll have to plan your application carefully since the database format can't be changed once set up. Generally good for writing applications with.

PLUSES • MINUSES

- ☐ Sensitive data can be protected by a password system.
- ☐ Record structure can be conditional – e.g. "only have a 'spouse' field if status is 'married'"
- ☐ "Processes" provide for some simple automatic calculations
- ☐ Over-protective user interface, which asks for confirmation of almost every command
- ☐ Database main attributes are fixed after initialisation and can't be changed.
- ☐ Doesn't have full screen editing of records
- ☐ Manual needs an index, and is weak on explaining advanced topics
- ☐ The (single) key field has to be entered separately to the record data proper

THE GOOD SOFTWARE FILE

DATABASES

dBase II

£119.00 • Ashton Tate/First Software • 07357 5244

RAW BUT
POWERFUL!

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines, dBase II is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

PLUSES • MINUSES

- ☑ Powerful command language for customised programs
- ☑ Indexing facility makes large databases fast to handle
- ☑ Can handle very big databases
- ☑ The data can be fairly easily altered after its entry
- ☑ Manual is daunting (but there are plenty of independent books on the market)
- ☑ Can't easily alter the screen record layout
- ☑ For an expensive package, you still only get 32 fields per record
- ☑ Generally unfriendly unless you have some programming skills

Cardbox

£59.99 • Caxton Software Limited • 01 379 6502

As the name suggests, this database sets out to be a straight replacement for a conventional card index system. It doesn't provide any facilities for totalling up fields in different records, but does provide comprehensive ways of searching records. Very flexible screen layout, set up by a screen editor. Although a well established product, it is hard to see who would want a database which can't sort its data into order!

PLUSES • MINUSES

- ☑ Very good control over the screen layout of each record (or "card")
- ☑ Can put any title or prompt text anywhere you like on the card
- ☑ The documentation makes Cardbox very simple to use
- ☑ Wide range of data patterns that can be searched for
- ☑ Elaborate indexes can provide efficient access to data
- ☑ No way to sort the data into alphabetical order
- ☑ No control language or field totalling facility
- ☑ Slow to access unindexed data

Pocket InfoStar

£69.50 • MicroPro/Davis Rubin Associates • 0386 841181

Consists of two large programs, DataStar and ReportStar (both available independently). DataStar is a conventional database, with screen card layout and indexing. ReportStar then generates the printed output, either from DataStar or CalcStar files. Powerful if you can use them, but the suite is horribly overcomplicated, and the documentation just incomprehensible.

PLUSES • MINUSES

- ☑ DataStar is a quite good database with indexing and calculated fields.
- ☑ "Transaction processing" feature allows cross-referencing of data files.
- ☑ Can be integrated with other Pocket products, eg WordStar.
- ☑ Can take up to 255 fields per record
- ☑ Two-volume manual set is very badly organised.
- ☑ There are separate programs to run for form design, data entry and reporting.
- ☑ Operation is all by obscure command keys, à la WordStar.

Condor 1

£99.99 • Caxton Software Ltd • 01 379 6502

Condor is firmly pitched at the dBase II market. Like dBase, it is not only a filing system but also a programming language that allows command procedures for complex data operations. It can handle very big records — 127 fields — handy for some things like questionnaire processing. The user interface is slightly ragged, and it lacks dBase's ability to index files for fast access.

PLUSES • MINUSES

- ☑ Very flexible record structuring and searching
- ☑ Better control than dBase over the screen format
- ☑ Command language for creating data processing programs
- ☑ Can handle big databases — up to 127 fields per record
- ☑ The manual is large, well written and understandable
- ☑ No provision for fast data access by indexes
- ☑ The on-screen prompting information is weak

The Best! from HiSoft

Devpac80 Ver. 2

Devpac has always been a popular Z80 development system used by Software Houses all over the world since we first introduced it for CP/M over 6 years ago. Many regard it as a standard to work from. Now we have extended the standard to produce the most powerful Z80 development package yet seen and still at the same price as before, half the price of certain other systems!

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- ☑ assembler produces standard .SYM symbol table files for use with the symbolic debugger or with debuggers from MicroSoft and Digital Research.
- ☑ the debugger is symbolic i.e. you can see the labels you used when assembling in the code that you are debugging.
- ☑ debugger uses full conditional breakpoints and watchpoints so that you can even profile your program to highlight slow areas.

All this power with an extensive, quality ring-bound User's Manual for the incredible price of

£39.95

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C is now a very popular and important language. We offer two entry points, one for beginners or casual users and one for the experienced C programmer. Both are supplied with a full GSX library for graphics programming under CP/M Plus.

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Aztec C' Prime £79.95

- ☑ industry-standard compiler with upgrade path to developer and commercial versions.
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- ☑ full Kernighan/Ritchie with floating-point.
- ☑ versions for CPC6128 / PCW / PC1512 computers.

We have many other high quality language/utility products for the Amstrad computers including **HiSoft Pascal80**, **Nevada COBOL & FORTRAN** (£39.95 each), **FTL Modula-2** (£54.95), **ZBASIC** (£49.95), **The Knife** (£12.95), **HiSoft FORTH** (£19.95), **Write Hand Man** (£29.95) and more. Please write or phone for our latest catalogue.

Order by phone using Access/Visa or by post. Prices include VAT and P&P. Goods rushed to you by First Class Post.

HiSoft The Old School, Greenfield, Bedford MK45 5DE ☎ (0525) 718181

Datafile One

£30.00 • Datarun • 0332 810789

This database is both a low cost card index system and a mail merge utility specifically designed to work with LocoScript. As a card index, it's quite good for personal use, and the mail merge is simple but effective. Good value for money. The documentation is in the form of a database on the delivery disc.

PLUSES • MINUSES

- ☒ Data can be range checked as it is entered
- ☒ Complex masks can be used for searching the database
- ☒ Quite fast record access for a low cost package
- ☒ Report section (the mail merge) uses LocoScript documents for templates
- ☒ LocoScript text styles (bold, italic, etc.) can be used
- ☒ The screen editor for designing layouts is a bit too simple to be effective
- ☒ No conditional processing in the mail merge section
- ☒ The on-line documentation is a nice idea, but cumbersome in practice. Needs a proper manual.

DataStore (née Data Gem)

£39.95 • Digita International • 03954 5059

A simple 'card index' type of database written in Mallard Basic. Although it is quite slow in some areas, it does use index files which makes retrieval of individual records quite quick. It allows calculations on numeric fields and can print out totals and averages from your datafiles.

PLUSES • MINUSES

- ☒ Adequate performance on simple files
- ☒ The manual has a good introduction on explaining database jargon
- ☒ Numeric fields can be calculations, like in spreadsheets
- ☒ Complex searches take a long time
- ☒ Cumbersome to use for anything other than a simple lookup on a single field

Chibase

£49.95 • Chiasma • 06333 60996

A 'free format' database, which means you don't have to go through the usual rigmarole of defining your record format before you can enter your data. Instead, you just type text into Chibase, mark the words to be indexed, and it can then treat that file as a database.

PLUSES • MINUSES

- ☒ Doesn't require you to set up a preset 'record' card
- ☒ Searches through your data very quickly
- ☒ Allows you to select up to 50 keys for each page of text
- ☒ Allows editing of text without a word processor
- ☒ No sample file for you to learn on

Magic Filer

£69.95 • Sagesoft • 091 284 7077

Magic Filer is not a true database, but is a structured filing system. Information is split into a hierarchy of categories, and tagged with a keyword which is not stored as part of the data. You can browse through the data, but it will get tedious if you find it needs updating regularly. Many applications will find Magic Filer restrictive.

PLUSES • MINUSES

- ☒ Good for browsing through data when you don't really know what's there
- ☒ Data can be declared 'read only' to protect it from alteration by other browsers
- ☒ The basic filing system is weird but not wonderful
- ☒ Editing data once in Magic Filer is awkward
- ☒ The documentation is far too brief
- ☒ You can only have one database per disc

Microfile (Sold in The Micro Collection)

£49.95 • Saxon Computing • 0401 50697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. It's fast and has good screen control, although it has some size restrictions. Microfile comes as part of a software suite, 'The Micro Collection', which is good value (Microfile, Microwrite, MicroSpread, Flexilabel and Lock-It)

PLUSES • MINUSES

- ☒ The price includes competent word processing, spreadsheet, labelling and encryption programs
- ☒ Plenty of menus and on-screen prompting
- ☒ Very flexible formatting for screen layout and printing
- ☒ Numeric fields can be expressions to be calculated
- ☒ Indexing is fast and can be on several fields
- ☒ Maximum number of fields per record is only 20
- ☒ Limited facilities for totalling up fields in a database

GOOD VALUE!

Masterfile 8000

£49.95 • Campbell Systems • 0378 77762/77763

POWERFUL
GOOD VALUE

A specially written PCW version of the successful database sold on other Amstrad computers. It is fully menu controlled, and makes good use of the PCWs special screen and keys. It can deal with up to 8 separate data files at once, so can cope with relational databases.

PLUSES • MINUSES

- ☒ Works fast
- ☒ Wide range of Layout options
- ☒ Handles 'relational' files
- ☒ Plenty of good example files
- ☒ Capacity limited by size of M drive -- best on an 8512
- ☒ No calculation facilities
- ☒ Takes a while to learn all the features

File Manager

£99.95 • Sandpiper Software • 0978 355333

A database with the power to handle full relational applications. Unfortunately the manual is so badly written that the power is hard to get to. For the money, there are better systems around.

PLUSES • MINUSES

- ☒ Potentially a powerful and flexible system
- ☒ 'RAPID' generator can produce simple files quickly
- ☒ Appalling manual
- ☒ Poorly customised for PCW use
- ☒ The full system is very complex to use

Delta

£99.99 • Compsort • 04868 25925

POWERFUL!

Delta is another of the heavyweights, like dBase II and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default 'quick' layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

PLUSES • MINUSES

- ☒ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ☒ Screen layout can be user defined, or 'quick' mode used
- ☒ Single-page letter writer provides detailed mail-merge
- ☒ Processes can be defined, and run from user defined menus, for ease of use by others
- ☒ Very full, and quite readable, manual
- ☒ Only one field may be used for indexing
- ☒ Very big program - a PCW8256 would be hard pushed
- ☒ Some of the menu operations are unforgiving to errors

FT=DB

£29.95 • Encyclosoft • 0270 811868

SIMPLE &
EFFECTIVE

A free form database like Chibase, but instead of typing your text into the database itself, you create it on a wordprocessor first of all. Once done and edited to your liking, you mark all the word you want to be used as keywords (still in your wordprocessor) and then read it into FT=DB. Now you can treat it as a database, compile indexes, search for phrases and so on, all quite efficiently.

PLUSES • MINUSES

- ☒ Easy to use
- ☒ Versatile retrieval system over several text files
- ☒ Inexpensive
- ☒ Can move between index and text at will
- ☒ No editing facilities within FT=DB

Smartcard

£59.95 • Focus Computer Systems • 0272 420109

A conventional card index database which bears a superficial resemblance to Cardbox. As ever, you have to define your record format before you can enter any data. Small and fast, you can sort the records, index on up to 3 fields, and do simple arithmetic in fields. Can't put background text (eg. titles) on records or printouts.

PLUSES • MINUSES

- ☒ Good clear screens
- ☒ Plenty of on-screen help
- ☒ Fast and high capacity
- ☒ Easy to use
- ☒ Can't put background text on printed reports
- ☒ No way of exporting data for mailmerge

THE GOOD SOFTWARE FILE

DATABASES GRAPHICS COMMUNICATIONS

Matchbox

£29.95 • Quest International Computers Ltd • 04215 66488

A cheap, no-frills card index type database. The manual is only 13 pages long, so you had better know how to use a database before you buy this. You can't customise screen layouts, but you can print labels. Would suit a simple booklist or address list, if you really can't afford better.

PLUSES • MINUSES

- ☐ Clear on-screen menus guide you through the program
- ☐ Can search for fragments of words in a record
- ☐ No control over screen layout
- ☐ Skimpy manual (13 pages) has almost no examples
- ☐ All characters have to be upper case
- ☐ Only a single index field is allowed
- ☐ If you type fast, you will lose characters

Cardbox-Plus

£99.95 • Business Simulations Ltd • 0892 863105

Business Simulations are the company who actually wrote the successful Cardbox database, and they are the sole distributors of their enhanced version Cardbox-Plus. Disappointingly, still no field totalling facilities, but it does boast sorting, index listing, disc management and an autosave feature as extras to Cardbox. The ultimate straight card index, if you have the money.

PLUSES • MINUSES

- ☐ All the facilities of the very successful Cardbox
- ☐ Cards can be sorted into order for browsing and printing
- ☐ "Autosave" will regularly store the data to disc in case of mishap
- ☐ Files created by Cardbox can be read
- ☐ Full and good manual, although the tutorial is at the end
- ☐ Still no way of performing numeric calculations
- ☐ A lot to pay for a few frills to the basic Cardbox

GRAPHICS

DR Draw

£49.95 • Digital Research • 0635 35304

This is a drawing utility, which allows you to compose designs from circles, polygons, lines and a wide variety of shadings and styles of text. It's very cumbersome to use unless you also have a light pen or a mouse, and overall not very friendly. Not recommended unless you're ready for some hard work.

PLUSES • MINUSES

- ☐ When pushed, it can produce very neat diagrams, even on the standard PCW printer
- ☐ Good, professional manual (although no mention of Amstrad specifics)
- ☐ You need CP/M expertise to get it installed and going
- ☐ Painfully slow screen handling
- ☐ Difficult to use by keyboard alone -- you must buy a lightpen or mouse

Graphics, the Universe and Everything

£19.95 • CP Software • 099382 3463

The full title is 'All you ever wanted to know about graphics, the universe and everything on PCW 8256/8512 ... but were afraid to ask.' Phew. A wide range of little programs to do graphic things on the PCW like smooth scrolling, defining windows, moving sprites around. The programs are written in assembler, with the source code provided if you want to see how to program them for yourself. Great for programmers.

PLUSES • MINUSES

- ☐ Wide range of useful functions
- ☐ Code can be used from BASIC, machine code, or any language
- ☐ The assembler source code is supplied
- ☐ Inexpensive
- ☐ Good manual
- ☐ A bit long-winded to use from BASIC
- ☐ No way of loading just the routines you want

GREAT FOR PROGRAMMERS

Microdraft

£79.95 • Timatic Systems Ltd • 0329 226727/239953

This package is essentially an electronic drafting board. Lines, circles, polygons, text and so on can be accurately placed on a page, and then scaled and rotated en masse. Microdraft is not an art package, so there are no freehand sketching facilities.

SPECIALIST BEST BUY!

Overall an excellent package, comprehensively designed and easy to use.

PLUSES • MINUSES

- ☐ Elements can be positioned very accurately (better than the PCW screen resolution)
- ☐ Discrete elements can be grouped into blocks and manipulated
- ☐ Well written and comprehensive manual (except it refers to the CPC6128 keyboard)
- ☐ "Zoom" feature allows you to work on fine detail
- ☐ Supports output on proper graphic plotters
- ☐ No "undo" facility
- ☐ Hard copy output is very slow

Video Digitiser

£99.95 • Electric Studio • 0462 675666

An black box which plugs onto the expansion port at the back of the PCW, into which you put a video camera or video recorder. It will then 'digitise' the picture it receives and display it on the screen. You can fine tune the thresholds for ideal contrast, and print it out to the PCW printer. Pictures can be saved and edited with the Electric Studio light pen or mouse. Nice, but expensive by the time you've bought a light pen/mouse too.

PLUSES • MINUSES

- ☐ Automatically picks a good contrast level for the display
- ☐ Can store pictures for the Light Pen or Mouse to work on later
- ☐ Simple to set up
- ☐ Range of different operating styles for high quality
- ☐ Can print out on a full A4 page
- ☐ Can't take simple TV signals -- video only
- ☐ Manual isn't very helpful if you need to manually tune the thresholds

Graphics Operating System

£69.95 • Mirrorsoft • 01-377 4645

This is a library of machine code routines for programmers to use. It is essentially the guts behind Fleet Street Editor Plus, and provides you with a set of routines to draw menus, read a mouse, fill areas and so on.

PLUSES • MINUSES

- ☐ Good range of general purpose graphics functions
- ☐ Routines can be called from most programming languages
- ☐ Functions to drive mice and menus are provided
- ☐ 'Fill' command can be undone
- ☐ Consistently designed and documented calling mechanisms
- ☐ Manual is weak on tutorial content
- ☐ Only leaves you with 17k of workspace in BASIC
- ☐ 'Fill' command is slow
- ☐ Lots of PEEKs and POKEs make it longwinded
- ☐ Priced for company programmers not home users

DR Graph

£49.95 • Digital Research • 0635 35304

A rather specialised package, specifically for presenting complex data in graph form. Can produce line graphs, bar charts, piecharts, scatter plots, text, and compositions of any mixture of these. Very flexible, and easily operated by menus, but really needs a graph plotter to do it justice.

PLUSES • MINUSES

- ☐ Can read data from certain spreadsheet packages (e.g. SuperCalc)
- ☐ Extensive annotation and text placing is possible
- ☐ Good, professional manual (although no mention of Amstrad specifics)
- ☐ Supports a colour graph plotter as an output device
- ☐ You need CP/M expertise to get it installed and going
- ☐ There is no way of joining points by a smoothed curve

ExBasic

£11.45 • Nabitchi Computing • 051-708 8775

A utility program which augments Mallard BASIC's commands, allowing you to use quite sophisticated graphics functions. You can draw or erase lines, circles or dots, save and load screenfuls of data, pause, beep ... all with commands like PRINT "DRAW.":100;200;. Guaranteed no machine code or POKEs needed!

PLUSES • MINUSES

- ☐ All functions done by simple BASIC PRINT statements
- ☐ No machine code knowledge needed
- ☐ Good range of simple drawing commands available
- ☐ Can save and load images once you've got them right
- ☐ Very cheap!
- ☐ Not quite fast enough for proper animations/games programs

EXCELLENT VALUE!

Light Pen or Mouse & Graphics Package

£79.95 or £129.95 • The Electric Studio • 0462 675666

GREAT FUN!

Ostensibly you are buying a piece of hardware — a light pen, or a mouse, that can be used with many PCW graphics programs, like DR Draw. In practice, its main use is the software that comes with it, a very good picture drawing package. You can freehand draw, get airbrush effects, create polygons and circles, and move blocks of pixels. Great fun.

PLUSES • MINUSES

- ☐ Light pen hardware is a simple module that slots onto the back of the PCW
- ☐ You can draw by freehand pen control or with cursor keys for accuracy
- ☐ Menu selections are easy to understand
- ☐ Full range of functions for area filling, shading and spraying
- ☐ Blocks of pixels can be moved and copied
- ☐ You would need to know your way around CP/M to use the lightpen itself with other graphics programs
- ☐ Items on the screen are purely pixels, not distinct elements like in DR Draw or Microdraft
- ☐ No positioning of items by numeric co-ordinates for accuracy.

COMMUNICATIONS

Communications is one of the glittering areas of computing, gurus would have you believe. It can provide a fascinating hobby for 'hackers', but more importantly it is a valuable business tool.

'Electronic mail' is just what it says: you use your PCW to send messages, which can be documents thousands of words long, to others on the electronic mail system. The best known system of this kind is Telecom Gold, which also allows you to send telexes. Another major system is Prestel, which is more of an information provider - you can read share prices, weather information and other news direct from your phone line.

For any professional service, you pay a registration fee, plus a connection charge -- typically around 10p per minute you use the system. Of course, your phone bills are extra. For hobbyists, there are also 'Bulletin boards', which are effectively a kind of private electronic mail system run by a system operator (a 'sysop' to those in the know).

To use any service, you will need to buy a modem and an interface. A modem allows you to send computer signals down a phone line, and the interface gets the signals from your PCW to your modem. The pair will set you back £200 or more. Once done, you need some software to allow you to send and receive data, and it is this software reviewed below.

Electronic mail services just send strings of characters to and fro, whereas Prestel is a 'Viewdata' system, meaning it sends pictures and graphics too. Software needs to do more to receive Viewdata graphics, so if you want to use Prestel make sure your software is up to it.

8256UKM7.COM

Public domain (ie. free!)

**INCLUDED FOR
COMPARISON**

P.D. software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file transfers using error correction and as a dumb terminal either for use over the phone or between two Amstrads. Between two PCWs file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communications after you've got fed up with the PCW's MAIL232. 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machines.

PLUSES • MINUSES

- ☐ Cheap! (the price of a phone call)
- ☐ Easy to use, and helpful menus
- ☐ Both CRC and Xmodem protocols supported
- ☐ Single file and Batch Mode transfers
- ☐ "Quiet" mode for slightly faster transfers (on-line transfer progress report disabled)
- ☐ Only ASCII, no Viewdata
- ☐ You need to find a PD software source (eg. use a modem and MAIL232 software)

CHITCHAT E-MAIL, VIEWDATA or COMBO

Sagesoft • £69.99, £69.99 and £99.99 • 091 284 7077

Two communications programs for the 8000 series machines that have been around for a good time now. Most of the features you will need are here: message text editor, preprogramming unattended tasks (if you use a suitable "intelligent" modem), directory of stored numbers, copy to printer, and a very useful connect time clock so you can watch your phone bill climb! E-mail is used for simple text phone links like Telecom Gold, whereas you'll need Viewdata if you want to use Prestel. The Combo pack contains both E-mail and Viewdata.

PLUSES • MINUSES

- ☐ Good, clear documentation
- ☐ Easy for first timers to use
- ☐ Built in text editor for pre-sending message preparation
- ☐ Pre-definable tasks executable at any preset time if unattended.
- ☐ No error corrected file transfer (i.e. Xmodem or CRC)

Dialup

£89.99 • PMS Communications • 021-643 7688

Offers both E-mail and Viewdata operations. Very easy to use, and offers an XMODEM transfer protocol unlike Sage ChitChat. It isn't cheap, but if you are buying a modem too there are some cut-price bundled deals to be had eg the Miracle Technology WS4000. Comes with a 'dongle' -- a special anti-piracy connection lead for your modem.

PLUSES • MINUSES

- ☐ Simple to use
- ☐ Comprehensive file transfer commands, including XMODEM and the increasingly popular KERMIT
- ☐ Runs from the M drive
- ☐ Manual is not PCW specific, and the references to 5.25" discs are tedious
- ☐ Not cheap in its basic form

COMM+

£86.25 • NewStar • 0277 220573

**POWERFUL,
VERSATILE**

This single package combines both ASCII and full Viewdata block graphics and Telesoftware downloading. A very powerful command language allows you to look for particular messages coming in and take actions, even while doing other things. Its use is only limited by your programming ability.

PLUSES • MINUSES

- ☐ Very comprehensive and well indexed ring bound manual
- ☐ High quality Viewdata graphics
- ☐ Well presented on-line help menus
- ☐ Autodialler program works with most manual modems
- ☐ Telesoftware downloading facility, with CRC/Xmodem checking
- ☐ Very powerful command language, doesn't need much programming skill to learn
- ☐ Slow with screen update in Viewdata mode
- ☐ Text editor (used for message preparation) is slow
- ☐ Not recommended for absolute beginners to communications

NEXT MONTH

The guide continues next month with the categories of SPREADSHEETS, UTILITIES and EDUCATIONAL software. The month after that will cover WORDPROCESSORS, ACCOUNTS/PAYROLL and GAMES software, and the month after that it's back to this month's topics.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.50 each.

Meanwhile, if you are aware of any significant omissions or errors in the File as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

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ATLAST

Only £24.95 disc – save £5!!

Perhaps the most powerful use for your PCW after word-processing is in organising records. The At Last Database Manager from Advance Software is perfectly suited for the job.

It's fast, full-featured, powerful and well-tailored to the needs of the machine. It's also extremely flexible, so you can customise it to a huge range of situations where information needs to be organised and quickly recalled or analysed. An address file, a customer list, a record of your massive LP collection. Whatever.

Features include:

- Easy layout of forms using the built in text editing facilities.
- Number of records limited only by disc space (up to 32,000).
- You can set up relationships between data in different files – very powerful facility!
- Records can be sorted – you can index up to five fields in each file.
- Powerful data transfer utility making it easy to upgrade to this program.
- Nine field types including normal alphanumeric, three types of numeric, date, hours/minutes/seconds, automatic serial numbering.
- Detailed manual and sample data supplied.

All in all, a wonderful way of putting your Amstrad to serious use.

A.M.S. DESKTOP (with Mouse)

Only £69.95 – save £10!!

This package offers your PCW a unique double-upgrade – hardware and software.

The hardware is a MOUSE, an add-on that's becoming standard issue on more and more computers because of the enormous gain in ease of operation it can give. It plugs into the machine's expansion port and you then control an arrow on screen by simply rolling the mouse over a small area of your desk.

But what makes this package really special is the DESKTOP software. It transforms the traditional CP/M working environment. Instead of having to remember numerous obscure commands you can simply select from a range of pull-down menus. Move the arrow to the selection you want and press the button on the mouse. Point and Click!

Handling files on disc becomes far easier – copying, erasing and moving files can be done quickly and almost intuitively. Then there's a built in telephone/address book, calculator, and clock and even a sliding-number puzzle to while away the odd spare minute.

If you regularly use CP/M software, you're likely to find this package slick, impressive and fun to use.

Rational Solutions & Advance Software

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Surname	Forename(s)		
Ashton	Fred	1	7745 14
Muirney	Janet	3	0566 86
	Michael	2	0927 98
Forename(s): Janet	Surname: Muirney		
Membership number: 3			
Office: COMMITTEE			
Address: 34 High Heaven Way			
Cloudsville			
Firmament			
Postcode: GD1 9TT			
Phone: 0368 268750 (home)	0368 846215 (work)		
Date Joined: 01, 08, 86			
Interests: AMSTRAD CP/M			

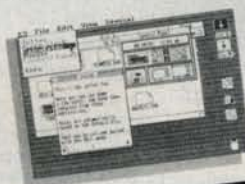
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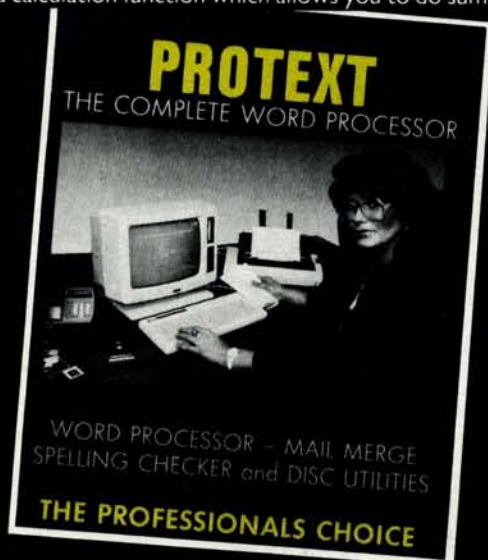
The word-processor includes word-counter, fast search and replace, and has numerous slick touches such as a calculation function which allows you to do sums at

the keyboard and then place the result automatically in the document.

What makes the package particularly good value for money is that it includes the much-praised spelling checker *ProSpell* AND Arnor's excellent mailmerge program *ProMerge*. So with a single purchase you can probably satisfy all your word-processing needs.

If you've been brought up on LocoScript, you'll find *Protext* takes some adjusting to – commands are issued by means of brief key sequences rather than pull-down menus. But these are logically thought out, and help is available on screen at any time.

If speed of use is high on your list of priorities, *Protext* could be the software you've been waiting for.



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A stunningly atmospheric game in the Infocom fantasy tradition. The action starts with you, the village postman of Festeron, discovering that a cat belonging to the keeper of the Magicke Shoppe has strangely disappeared. Your only help in solving what rapidly becomes a deep mystery is Wishbringer, a small stone bestowing seven special powers.

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We don't have space to tell you about the rest in detail, except to say they're all SUPERB!

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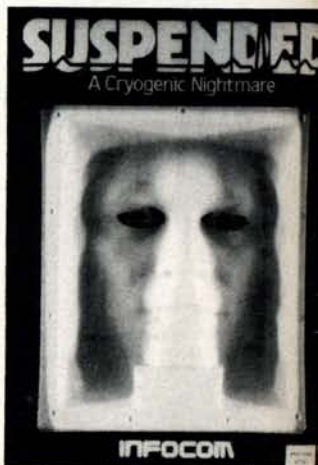
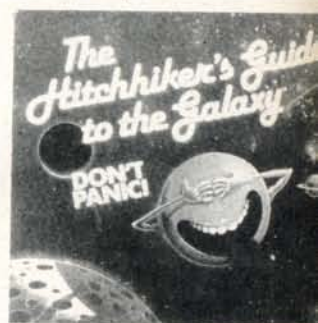
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8000 PLUS

TIPOFFS

The collection: issues 1-6

A PEAK AT THE CONTENTS On LocoScript

Major articles on Headers and Footers, Tabs and Rulers, Producing Tables, and Laying out Business Letters. Plus scores of tipoffs: Overprinting, Foreign characters, Creating a letterhead, Better Underlining, Typing ahead, Speeding up Long Documents, Using Phrases, Mathematical symbols, Two-column printing, and numerous others.

On CP/M

Major articles on Disc-Handling (including how to make an auto-start disc), Customising individual keys, Controlling the Printer, RPED, SETSIO and DEVICE. Plus tipoffs on using PIP, function keys, screen printouts, SETKEYS, avoiding problems with DISCKIT, and many more.

Other TipOffs

Feeding Continuous paper, Label printing, Using A5 paper, Ribbon re-inking, Screen contrast, the free game of Life on your master discs, Boot discs for Cracker and NewWord, and a host of slick little tips for Basic programmers. To mention but a few.

At last the publication you've been clamouring for is here. We've put under a single cover the complete range of TipOffs published in the first six 8000 Plus issues. And there's more: the series of (so we're told) outstanding tutorial articles on LocoScript and CP/M reprinted from those issues.

To tie the whole package together is, published for the first time, a comprehensive index. So now at last you can turn instantly to the information you *know* we published somewhere but can't remember where.

So much material was covered in the first six issues of 8000 Plus this compilation is certain to become a constantly used reference book. Apart from anything else, it offers a chance to catch up on the bumper tips sections in sold-out issues 1 and 2. *The 8000 Plus Tipoffs Collection* is printed on high-quality paper with a colour cover and we think it deserves a permanent place next to your PCW.

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It adds up to a good argument for a cover up.



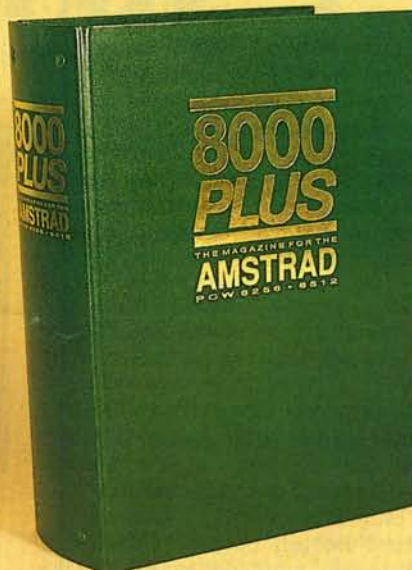
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Any task involving copying off paper is thereby made much easier and faster. In fact the clip supplied is sturdy enough to support an issue of 8000 Plus open, say, at the TipOffs section.

The Thingi can be positioned either to the left or right of the screen and can easily be removed and replaced if necessary.

A really sensible, cost-effective add-on for your PCW.

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THE PAWN



THE PAWN

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This program from Rainbird Software is one of the year's outstanding releases. It's a grand adventure set in the mysterious kingdom of Kerovnia replete with ice towers, golden palaces, dangerous forests. In your battle to escape this land you encounter intriguing characters such as the laughing Buddhist monk, and must use your sharpest wits to extricate yourself from some dire situations.

Where the game excels is that it features both outstanding graphics and effective text description and interaction. The 8000 Plus reviewer awarded it five out of five across the board, so what could we do but rush out and obtain it at a discount for you our readers...? A magical purchase.

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POSTSCRIPT

A load of lugubrious letters lugged into the limelight by a laconic Ed

We continue to receive a completely mixed post bag, with praise and complaints, replies to previous letters and technical queries that have boggled people. The most notable common factor in this month's pot pourri is the strangeness of the addresses, and not to be outdone we've abandoned the boring regularity of Somerton for the bohemian freedom of Bath. If you're still determined to contact us, try: *PostScript, 8000 Plus, 4 Queen Street, Bath BA1 1EJ*

If you are plugged into the world of comms, you can send us your thoughts by Telecom Gold, using the mailbox 84:TXT152

Spreading it out

I was pleased to see in the April edition of 8000 Plus your articles on spreadsheets. Unfortunately they did not give answers to some problems I have using SuperCalc 2 on my PCW8256:

1 How do you save spreadsheets on a 'data' disc without first copying SC2.COM, SC2.HLP and SC2.OVL to the disc and thereby taking up 62k of the available 173k of valuable disc space?

2 Why when constructing a spreadsheet which includes a number of lengthy formulas do I get a message to tell me I have run out of memory when the program exceeds 31k?

3 Is there an easy way when a formula exceeds the permitted 116 characters to enter parts of it in separate cells and then reference those cells – as suggested in the manual?

4 Can anyone explain 'black box' applications in connection with the 'execute' command, which I have not yet used?

M Mann
Potters Bar
Herts

1. Copy the files into the M: drive and run the program from there. Load your data from A: by prefixing the filename with the drive letter.

2. It's not the program that expands, but the data space your

formulae take up. The program takes up the rest of the 61k available within CP/M, leaving 31k for formulae and numbers.

3. Simple. If you have a formula such as $FRED = JOHN * 3 + 1.45 / JILL - 3.5767$, you could assign $1.45 / JILL - 3.5767$ to cell A1, for example, and then assign cell B1 (as another example) the formula $JOHN * 3 + A1$.

4. A black box application is one in which the layout and formulae have been worked out in advance, leaving the user just to 'plug in the numbers and go'.

Varying interpretation

Please when you review products intended for the technically competent could you not compromise the information content by writing the article so that it can be grasped by novices. I was most frustrated by your review of Borland's Modula 2. I was in the market for a Modula 2 but this article told me very little that I needed to know in order to assess the product. In addition I do not need to be told the differences between an interpreter and a compiler three times in the same magazine especially since M code is interpreted as is FORTH.

The performance difference between interpreters and compilers is largely a myth

propagated by extrapolating from BASIC. If the primitives in the language are powerful and the objects on which they operate are large the interpretive overhead will be insignificant. In addition the implementer of the interpreter can make optimisations that would be beyond most programmers. Has anybody out there got an APL for Amstrads?

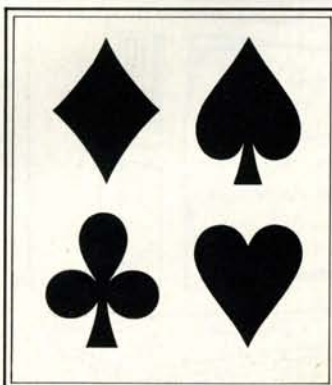
G R Streeter
Ascot
Berks

The content of 8000 Plus is intended for as large an audience as possible, and we include background information wherever possible in the hope that we can raise the level of understanding of our readers.

As I'm sure you're aware, the interpretation of FORTH and Modula 2 object code is a world away from that of most BASICs, though Mallard is a particularly fast version of the genre. It is still true that most compilers are significantly quicker than most interpreters.

Graphics to suit

I am getting into graphics, deep water and a tizz, as Michael Flanders might have said. My very own BRIDGE program, which is



aimed principally at providing me with a scratchpad for double dummy problems, is coming on nicely through various 'Danger - Men at Work' issues called successively CRIDGE, DRIDGE etc., (though I haven't yet used FRIDGE!) My exploration of the Indian territory know as Graphics stems from a wish to use symbols, rather than initials, for the suits and a single character for the '10' of each suit.

After much wandering and many blind alleys, (though I suppose 'box canyons' would better maintain the metaphor) I am now able to print quite nice symbols, even though I don't know how to show you them in this letter. However, when I try to put the same symbols on the monitor, all sorts of incomprehensible squiggles come out. The manual, representing as it does quite a different kind of wild country, seems to be silent on the matter.

Can you convince me of the friendliness of the natives?

Stanley Armstrong
Malvern
Worcs

It is precisely the unfriendliness of the inhabitants, and the tourist guide, which discourages travellers. What you have to come to terms with is that the printer and screen use different character sets, with only the main alphanumeric characters in common.

The screen set contain graphics and special characters from ASCII 128 to 255, whereas the printer obeys Epson's convention and prints italics. The screen set are tabulated on pages 113 to 118 of the CP/M manual.

Really free

I have been commissioned to write a book on the history of a fairly well-known industrial company. It has not yet been decided whether the chapters will be thematically or chronologically based. Can you recommend a piece of software which will help me to make categorised notes from a mass of unrelated information? I've heard of Brainstorm, but I don't know exactly how it works. Are there any alternatives?

Peter Newman
Banbury
Oxon

Brainstorm bills itself as an 'ideas processor'. It allows you to enter a series of headings into its text editor and expand on them with sub-headings and notes. At any stage you can 'close up' the lower levels to check the structure of the document, or to move sections

from one part of it to another. You can enter text in completely random order and add structure to it after that. Brainstorm is the only commercial CP/M program of this type that we're aware of, but see this month's public domain column for a cheaper alternative.

Printer problem

I have been using my PCW 8512 for about ten months and have just encountered for the second time a difficulty with print-outs.

The micro prints every character or space that I typed appeared with a sort of hyphen superimposed on its baseline. The general effect was as if the whole copy was underlined with a broken line, though this line was on the baseline, not below it in the position of normal underlining. The individual dashes that made up the broken line were shorter than the PCW minus character, and the snag affected print-outs from both Locoscript and CP/M.

I learned long ago that any eccentric behaviour by the PCW is due to me, not to it, and I shall be fascinated to know what boob I have committed this time.

Donald Richards
Caerleon
Newport

I hate to disillusion you, but I fear in this case there is something wrong with the printer. See if it works with another PCW or take it to your dealer.

Getting things in proportion

Can you answer the following questions for me:

1. Just as the TYPE command will list an ASCII text file on the screen, is there a similar command by which I can list a BASIC file on the printer without having to come out into CP/M and use PIP and LST.

2. Once the new version of LocoScript is available this will be able to support a daisy wheel printer. (I have an interface)

i Is the printer software

Common subroutines

Your correspondent, Gill Smith (March Issue), asked whether there was a way of renumbering which doesn't involve all the subroutines as well. 'There's no short cut' was your reply.

Gill may wish to consider saving all the subroutines as a group (by SAVE "COMMSUBS, for example) after deleting the main part of the program. After reloading the whole program, delete the subroutines and modify the program, renumbering as necessary. Lists of "unidentified line in " messages will appear, but these unidentified lines, which are the missing subroutines, are left unchanged. When the program modifications are complete MERGE "COMMSUBS will rejoin the program for testing.

controlled so that a single pitch printer can be used to print any pitch, including proportional spacing (using NewWord I can control a single pitch printer to any pitch, but NewWord as a word processor does not support proportional spacing).

ii If the printer is NOT 'software controlled' will I be able to print onto a printer that has proportional spacing, with Locoscript set to PS and actually get proportional spacing.

I hope you see what I mean!

David Donegani
Leicester

1. Use the command LLIST.
2. LocoScript comes as standard with printer drivers for Epson and Diablo type printers. It does use its own proportional codes, rather than relying on the hardware of the printer. Check with Locomotive that the printer you intend to use is supported by their drivers.

Crawley man develops new physique

I know I am computer illiterate and don't know a BDOS from any other part of the PCW's anatomy. I do try hard though, I promise. I

I use lots of subroutines; these define functions and common string variables, enter the date and error-check it, ask questions, set up pull-down menus (Thank you R S Chadd, April 8000 Plus), retrieve records from files etc, and these are all held as COMMSUBS.BAS with line numbers starting at 50000. Each subroutine is set to start every 10 to 20 lines, with the line space as 10, so it is possible to remember the start of all the commonly-used ones, and they can then be used as part of many of my subsequent programs.

J W R Dutton
Netherwasdale
Cumbria

A useful technique if you're writing a lot of programs.

copy out programs very carefully (in this case the biorhythm listing from issue 7), I have them checked and double checked. I promise you that I do everything I am told.

I put in the disc, I tell it to load, I tell it to run. It asks me when I was born. I tell the machine the correct date. The machine asks me what date I want to know about. I tell it that I wish to know about May 7th, 1987. That's the date I stand as a candidate in the Borough Council Election.

The machine gives me numbers that I don't really like, so I ask again. It comes up the same. I run my wife's date of birth, my son's, my two daughters', the budgie's, yours. I make some up. Every time, the machine says that on the 7th May 1987 the whole world will be: Physically -98, Emotionally 62 and Intellectually 81. Did I do something wrong that I haven't found out about yet? Or are we heading for some dreadful epidemic on May 7th which will leave us all Physically at -98?

Incidentally, whatever date I ask about gives me very big negative numbers for Physically. Am I dead?

Waxing lyrical

I was very interested to read the letter from J Pumphrey (April 87 issue) concerning his problems with producing stencils for duplicating.

I have been using my PCW to cut stencils with great results. However I now wonder whether it may be having any deleterious affect on the print head. I do of course realise that a daisy wheel printer would probably produce even better results but do you, or any other of your readers, know of any reason why I should not continue in the same way?

W J England
Enfield
Middlesex

We've had several letters about cutting stencils with the PCW printer. While we've had no reports of damaged print heads, we would sound a warning, as duplicating stencils use wax and a chalk-based anti sticking agent which could potentially clog the very fine print wires in the print head. On your heads be it.

Hard disc horror?

I am using a PCW8512 and am interested in buying a 20MB Hard Disk. But I have read elsewhere that these disks, being precision engineered, require adjustments and maintenance at various intervals. Failure could lead to loss of all data...perhaps ten thousand pages! Can you advise?

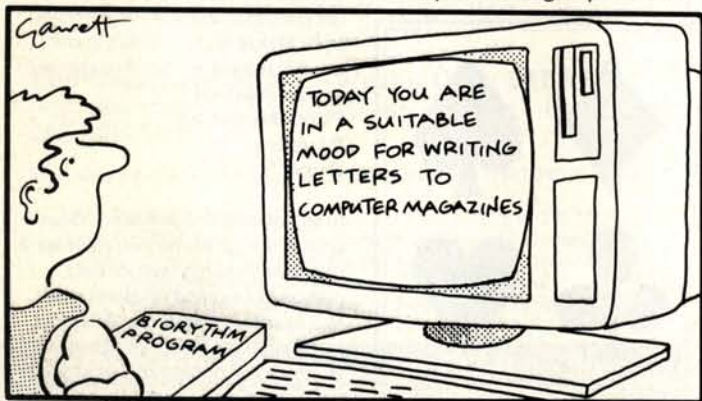
Father J Downey
Newtownards
Northern Ireland

Current hard discs don't normally require any additional maintenance. Some makes are a little fussy about being moved around (and should certainly never be moved while on), but otherwise you needn't really worry about mass data loss.

Arnor Praise

I too felt much like your reader Terry Dwyer when he complained about the bugs experienced in the new Protext word processing program. And whilst I too rattled my own sabre at them, not once did they take offence, duck or tire of trying to put matters right.

Obviously they had hit some major snags in their effort to produce probably the best word processor currently available. So one has to be a little fair, they did, in the interim period try desperately to keep everybody



Ron Gould
Crawley
Sussex

I doubt it. It seems more likely that you've made an error in typing in the program. For some reason the program interprets the date of enquiry as the same no matter what values you enter. Check thoroughly any line which includes the variables yn%, mn% and dn%. Could you have typed in the program on your PCW's triple critical day?

happy by providing something. And whilst they may not have succeeded, I have to give them full marks for trying. And it is for this reason that I would not hesitate in recommending and doing more business with them as and when the time arises.

Now I am working happily with Protext, I have to admit all the aggravation was worth while. There is little it cannot do and it puts the more expensive WordStar on the scrap heap.

Walter Parsons
Royston
Herts

Problems with the BMA

I use my PCW8512 regularly for business and personal letters and although I am still a two finger amateur I churn out quite a large number of letters, invoices and calculations. During this work I occasionally get unexplained warnings from Locoscript and I wonder if you can enlighten me.

I frequently take existing documents from disc file and edit, sending the result to the M: drive. I use a CF2 disc in drive B: for 'read only' operation. On completion of the edit I transfer to drive A:, press [f1] for 'disc change' and then [f4] to move the edited document from drive M: to disc. At this point, on pressing [ENTER] I sometimes get a 'file already in use - cancel operation' message.

The odd thing is that when I follow the instruction and press [CANCEL], the document moves to the new location. I feel that I am doing something wrong but cannot figure out what.

Bert Arter
Worcester Park
Surrey

I don't understand why you're working in this way, which seems rather convoluted, but the easiest way to avoid the error message is to use [f3] and copy the document from drive M: to drive A:.

To B or not to B

I would like some advice about a few problems we are having with our Amstrad. The first is in connection with PIP. We have been able to use this to copy from A to M and vice versa, but it just says B? (or words to that effect) if we try to get it to copy things to B. We used it perfectly well with a database program, enabling us to input the systems disc and the program itself in one step - into drive A:. But when we tried to cut out another step, by incorporating this with the actual data disc, which

we use in drive B, it refused to talk to us.

I have been saying 'we' because we do actually have someone here who is a programmer, but she cannot solve these problems.

Leonora Lloyd
National Abortion Campaign
London WC2

We've had a bit of trouble understanding quite what the problem is here, but think it's probably nothing to do with PIP. Assuming you used a command similar to PIP B:=A:FRED to copy the file across to the B: drive, and that you're still logged on to the A: drive (ie the prompt is A>), you have to precede the file name with B: to run the program. So, if the program is called FRED, the command would be B:FRED. If you were to put a space between the drive letter and the filename, B FRED, CP/M would only 'see' the B and would display the error message B? as it can't find a file called B on the A: drive. Hope that makes sense.

Cheap upgrade

I have now accepted that it is necessary to upgrade my 8256 with a second disc drive, at least it might avoid the usual error of disc juggling with the inevitable mix ups and expiring wanted programs.

I have looked back to a previous copy of 8000 Plus and noted the article on upgrades with interest, however the £140 ish cost puts me off. Also the second drive seems to be a bind by introducing another problem of disc mix ups. Would it

not be possible to install the A type drive in the second slot. I notice that Matmos of Cuckfield would seem to offer this at £29.95 or even a double density at £39.95 I would not mind turning the disc over if it saves £100!

I presume a software mod would be necessary. How about it, the cheapo upgrade special from 8000 Plus.

Chris S Whitaker
Waltham Cross
Herts

What a good idea. The snag is that we don't have a CP/M patch to get the PCW to work with an A: type drive on a B: drive cable. Matmos haven't managed it either, and add that they've run out of the double sided version.

If anyone knows how to do it, perhaps they'd let us know. It involves modification to the CP/M BDOS (so it's not for a beginner).

Interference

I have a PCW 8256. Whenever this is in use it causes interference on the VHF wavelength on the radio, even though it is not in the same room.

Is there any way of solving the problem other than not having the radio on?!

Neil Ogilvie
Watford
Herts

Try connecting your radio and micro off different mains circuits, or running the radio off batteries. If you have the choice, try a different VHF frequency.



Thumbs up

When I bought my PCW8512 I particularly said that I wanted the program 'Hitch-hikers Guide to the Galaxy'. The person who sold me the machine told me that there was no point in buying the program because the 8512 was not designed to be used in that way and that I would be better off buying, say a Commodore 64 with joystick etc for games.

I have now seen the special offer in your magazine and am very puzzled. I want the program, but do not want to have to buy a whole lot more parts for the PCW in order for us to be able to use it. Can you assure me that I do not need say, for example, a joy stick, a sound controller, etc to run the program and enjoy it to the full?

Judith Lee
HQ BAOR

Yes.

Small is beautiful

I have just read my first copy of 8000 Plus which would appear to be a good magazine please keep it up. I must however take issue with your editorial comment concerning the desirability of the antiquated 5.25" disc drive.

I bought my first 32k Pet in 1979 obtaining a double disc unit a few months later in 1980. I subsequently became involved in ►

The NewWord Symphony

Please can you tell me how to convert my keyboard to a different layout, for use with Locoscript. I bought the PCW8256 given the impression by the retailer that conversion of the keyboard was a simple matter. As indeed it is, for use with CPM+. but I find that CPM+ and Locoscript files are incompatible, and I do not wish to convert the keyboard for special programming purposes - I want it converted so that I can word-process faster. The QWERTY layout was designed in the 1880s to slow typists down, and I use a superior letter layout for typing purposes only, designed in the 1930s, which is between 2 and 2½ times faster. Unable to find a PC with this layout, I believed what was told me about conversion of the Amstrad. Alas, I cannot use it

with Locoscript, which is all that matters for this.

Can you see my problem? In case you can suggest a way I could do the conversion as a Locoscript file (Rather than SETKEYS), here is the layout. You may even not have come across it - it is amazing how many people have not. Designed by August Dvorak for US Navy typists. I have put the QWERTY values below each corresponding letter position.

I have written a SETKEYS file rearranging the keys like this, but as I have explained, this is no good. Can you help me at all with my

enquiry? I would be extremely grateful.

Mark Griffith
Tooting
London SW17

You're out of luck I'm afraid. Unless someone out there knows differently, there is no way of redefining the keyboard within Locoscript. You can redefine up to 26 keys in Protext, using the program's phrase facility, but that still doesn't cope with the punctuation keys. If you switch to NewWord, which runs under CP/M, you can use your established SETKEYS file.

;	,	.	P	Y	F	G	C	R	L
Q	W	E	R	T	Y	U	I	O	P
A	O	E	U	I	D	H	T	N	S
A	S	D	F	G	H	J	K	L	;
Z	Q	J	K	X	B	M	W	V	
Z	X	C	V	B	N	M	,	.	

POSTSCRIPT

the servicing of disc drive units used commercially and feel qualified to comment on the 5.25" disc unit. The 5.25" drive is very good in itself but the discs, even expensive brand leaders leave much to be desired unless handled in clean room conditions. They are prone to bending, dust, finger print and damp problems. The ensuing friction over a larger surface area then slows the drive causing loss of data, short head life and overheating. The sealed small disc obviates most of the above and now it has been proved in drive 2 using the cheap CF2 reliably for 12 months with no loss of data or failed discs I would be very loathe to down grade to the IBM favoured 5.25" unit.

Brian Jenkins
on board Gold of Ophir
Gibraltar

You may have had bad experience with 5.25" discs, but this is not generally the case. The millions of drives and tens of millions of discs sold would testify to the high reliability of the larger disc. The 3" disc is certainly more robust than the 5.25", but the latter is still favoured by the vast majority of available micros and about a sixth of the cost. The article was largely concerned with exchanging data, for which there is little point in adding another 3" unit to the PCW.

Skewing factor

I hope you might be able to help me with an infuriating 'gremlin'.

Every so often my printer prints over the same line, and doesn't feed the paper through at all. Also the roller does not seem to grip the paper properly and prints a large portion of a page at an increasing angle. I have tried all the different settings, and am currently using the setting for thin paper on ordinary high quality paper.

Would a paper guide help? Or is there a small screw which one can adjust to tighten up the roller. There is a possibility that this problem is increased by nature of the fact that my Amstrad and I live in a hot climate. Our geographical location also rules out my taking the printer to an Amstrad agent for fixing and therefore I hope you can help.

Mrs J Medlycott
Up Country
West Africa

The most likely cause of the paper skewing round is one of the three small guide rollers sticking or not moving into proper contact with the paper. The rollers are positioned behind the main platen

and move up and down when you move the bail bar in and out. Check they are all free to rotate and that they are in contact with the platen as it rotates.

Give me room

After making a Locoscript 'Start of Day Disc' I proceeded to erase all the files I did not require leaving only the template file in each column. I then started to type in my latest novel but after only twenty pages I pressed the 'Save and Print' only to be told that the disc was full. I knew I had done something wrong so I tried the other side of the disc and the same thing happened, in fact I tried two other discs with the same result.

I thought about consulting an expert so I called a local firm who deals with word processors. Although the firm that I called did not deal with AMSTRAD, their so called expert told me that my word processor would not store any more than forty pages per side of disc, as you can imagine I was not too thrilled with this news, after all my novels sometimes run into 300 pages.

Helen Randell
West Kilbride
Ayrshire

You'll get more room if you use a separate data disc for storing your text. Format one using DISCKIT. Split your novel into chapters, and carry it across more than one disc.

Sneaky snakey

I have enjoyed the light relief given by David Collinson's 'Snakey', which appeared in your March Issue, and it was also a most satisfying feeling that I had apparently typed the eighteen Basic lines in correctly first time. However, I wonder if I have? I have three questions to which I should be grateful for answers:

1 My 'food' is apparently

represented by inverted 'i's and not inverted 'o's. Is this correct?

2 My inverted 'i's (the food) always appear in the same places - every time the game is played. Is there a problem?

3 It appears that I score 30 points for each 'food' that, before I 'die', comes up on the screen plus an additional 30 points for each 'food' that I actually hit. Is this correct? The scoring was not mentioned in the short piece that you provided.

Keep up the really interesting articles and tips.

Morley L Pecker
B-1160 Brussels
Belgium

1. Check the contents of the inverted commas in the print statement in line 150.

2. No.

3. The 30 points on the appearance of each food item is a time bonus for surviving that long!

Des checeurs de spelling

I would be grateful if you could advise me on the following. My wife is a teacher of French and German and was wondering if there is any way of obtaining a spelling checker (similar to LocoSpell) to cover these two languages. After reading an article in the times regarding the successful European sales campaign mounted by Amstrad I am sure such software must exist. The problem is, who do I get in touch with to obtain it? Can you help?

Howard J Davis
Giffnock
Glasgow G46

While I've no doubt that foreign language spell checkers do exist, the market in this country is understandably small. If we have any foreign readers or suppliers who know of such products, perhaps they'd let us know.

Towards a solution

With regard to Chris Newton's problem regarding the 'towards' primitive in DR Logo, you were right to think that it had not been properly implemented. The number returned by the primitive, as reported by Chris, is, in fact, the bearing to which the turtle has to turn.

This means that it is fairly simple matter to implement the command yourself (although you'll have to give it a different name).

eg

```
?to point :a :b
>seth (towards [:a :b])
>end
```

This simple little procedure will now give you a fully operative 'towards' command, although with the name 'point'.

John Connell
Ellon
Aberdeenshire

Thanks to all the other readers who cleared up this problem as well, even the belligerent ones.

LocoSpell boobs

Some plurals are inexplicably included in the LocoSpell Dictionary - The city of BRISTOL (singular) is NOT -BRISTOLS (plural) is!

Quite shocking, but it makes yer titter.

Peter Townsend
West Kirby
Wirral

I can see the reason for excluding Bristol, as a proper name, and its plural, though slang, is in the COD (and presumably in Longman's, which is used by Locomotive).

Reading the LPRINT

I have been writing a small basic program which I want to give me the option of a hard copy print of the results. I tried using a sub-routine changing the PRINT command to LPRINT - but this does not work - is the only way to rewrite the program replacing the relevant commands and to run a different program depending on my requirements?

Surely this situation must arise in other programs where the results want to be viewed before a decision is made whether or not to have a hard copy.

I hope you can help with this problem.

Graham Smith
Middleton on Sea
West Sussex

You've approached the problem in the right way. The LPRINT command sends output to the printer in the same way that PRINT sends it to the screen. You may be having trouble with the TAB function or perhaps with a cursor positioning function, which won't work on the printer.

WP to WP

I've got Pocket Wordstar as well as LocoScript and can transfer ASCII files from Loco to Pocket but not vice-versa. No matter what I do I can't make ASCII files with Pocket.

And when I use Pocket on a disc with Loco files in it I can only use Group One of the disc. HELP.

Mark Knight
London SE17

To turn a WordStar (or NewWord) file into an ASCII file suitable for use in LocoScript, copy with PIP from one file to another, with the 'z' option set (put a 'z' in square brackets at the end of the command). You can then import the ASCII file into LocoScript by opening an empty file and inserting text via the [f7] menu.

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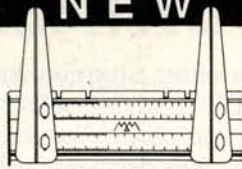
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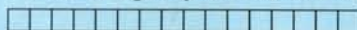
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